



Florida Division of State Fire Marshal

The Florida Fire Marshals and Inspectors Association,
"Organization" (§633.026)

Informal Interpretation

Date: 12/1/21

NFPA Document Number: NFPA 101 *Edition of the NFPA Document: 2018*

Paragraph Reference: 30.3.5.2

Explain how the Petitioner's substantial interests are being affected by the LFO's interpretation of the NFPA citation above:

The building in question is a new multifamily apartment building being designed in Gainesville, Florida. The apartment building will be 4 stories above grade plane, with 1 story below grade plane. The overall height of the apartment building is less than 60 feet above grade plane. The story below grade plane acts as the level of exit discharge for the building as more than 50% of exits discharge on this level. Inspector Stalnaker from the City of Gainesville has interpreted that the building is a 5-story building since the level of exit discharge is on the story below grade plane. This interpretation would require an NFPA 13 sprinkler system instead of an NFPA 13R sprinkler system, which creates a significant cost impact to the project. It should be noted that the City of Gainesville building official agrees that the building should be considered a 4-story building per the FBC. The evaluation of the building as a five-story building instead of a four-story building requires a NFPA 13 sprinkler system instead of a NFPA 13R sprinkler system which creates a significant cost impact to the project.

Enter a statement of the LFO's interpretation of the NFPA citation above and identify the manner in which the statement was rendered:

Inspector [REDACTED] indicated that since NFPA 101 Section 30.3.5.2 limits NFPA 13R systems to buildings that are "up to an including four stories in height" the intent of the code is to base the criteria on the requirements for stories in height found in NFPA 101 Section 4.6.3. This section indicates that, unless otherwise specified by another part of the code, stories in height should be counted starting with the level of exit discharge.

Enter a statement of the interpretation that the Petitioner contends should be given to the NFPA citation above and a statement supporting the Petitioner's interpretation:

The petitioner respectfully believes that the intent of NFPA 101 Section 30.3.5.2 and NFPA 13R is to permit a NFPA 13R system in residential buildings that are four stories or less, measured above grade, not measured above the level of exit discharge. The intent can be seen through the language in the 2012 and 2015 editions of NFPA 101. Section 30.3.5.2 of the 2012 and 2015 editions, use the wording "four or fewer stories above grade plane". However, the wording was changed in the 2018 edition to read "four stories in height". This change was not intended to impact the means by which the number of stories is evaluated, but rather to align with the

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traditional wording utilized in NFPA 13R. Please see the NFPA 101 First Revision draft below, outlining the substantiation for the proposed change.



First Revision No. 6010-NFPA 101-2015 [Section No. 30.3.5.2]

30.3.5.2

Where an automatic sprinkler system is installed, either for total or partial building coverage, the system shall be installed in accordance with Section 9.7 , as modified by 30.3.5.3 and 30.3.5.4 . In buildings four or fewer stories in height and not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with NFPA 13R - ~~Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies~~ -; shall be permitted.

Submitter Information Verification

Submitter Full Name: SAF-RES

Committee:

Submittal Date: Mon Aug 31 11:06:04 EDT 2015

Committee Statement

Committee Statement: Intent of the code proposal is to correlate the revised wording in the 2013 NFPA 13R under its Scope 1.1 with NFPA Codes that reference NFPA 13R.

The 2015 IBC did this correlation under its revision of Section 903.3.1.2.

Correlation of the IBC, NFPA 101 and NFPA 5000 with the scope of NFPA 13R will make this codes user friendly and will not leave room for misinterpretation of the requirements for application of NFPA 13R.

2013 NFPA 13R revised Section 1.1 states:

"1.1 Scope. This standard shall cover the design and installation of automatic sprinkler systems for protection against fire hazards in residential occupancies up to and including four stories in height in buildings not exceeding 60 ft (18 m) in height above grade plane."

Response Message: FR-6010-NFPA 101-2015

Message:

[Public Input No. 49-NFPA 101-2015 \[Section No. 30.3.5.2\]](#)

Section 1.1 of NFPA 13R is used to determine when an NFPA 13R sprinkler system can be used. It states, "in residential occupancies up to and including four stories in height, in buildings not exceeding 60 ft in height above grade plane". This wording of "stories in height" has been in NFPA 13R since at least the 2007 edition, before the "stories in height" requirement of NFPA 101 Section 4.6.3 was introduced in the 2009 edition. The intent of the term "stories in height" in NFPA 13R can be seen in the Annex Material to Section 1.1. The 2016 and 2019 editions use "four aboveground stories in height" and the 2022 edition has been revised to read "four stories in height above grade plane". Please see the snippets below organized by the 2016, 2019, and 2022 editions, respectively.

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A.1.1

NFPA 13R is appropriate for use as an alternative to NFPA 13 only in those residential occupancies, as defined in this standard, up to and including four aboveground stories in height, and limited to buildings that are 60 ft (18 m) or less in height above grade plane, which is consistent with limits established by model building codes for buildings of Type V construction. The height of a building above grade plane is determined by model building codes, which base the height on the average height of the highest roof surface above grade plane. For further information on the building height story limits, see model building codes.

A.1.1

NFPA 13R is appropriate for use as an alternative to NFPA 13 only in those residential occupancies, as defined in this standard, up to and including four aboveground stories in height. It should be noted that model building codes contain special allowances for pedestal or podium-style buildings, which permit the story height for structures above the pedestal to be measured from the top surface of the pedestal, rather than from grade plane, and it is the intent of NFPA 13R to follow this model building code method for determining the number of stories. Accordingly, it is possible for a four-story residential structure to be within the scope of NFPA 13R even when that structure is constructed on top of a one-story pedestal. However, where this is allowed, model building codes will require the pedestal portion to be constructed using Type I construction, and the pedestal portion will be required to be protected by an NFPA 13-compliant sprinkler system.

A.1.1

This standard is appropriate for use as an alternative to NFPA 13 only in those residential occupancies, as defined in this standard, up to and including four stories in height above grade plane. This standard references NFPA 13 in many aspects (e.g., hanging and bracing, design densities and spacing outside of dwelling unit, painting and finish of sprinklers, welding). If this standard does not specifically address a situation, NFPA 13 is a suitable resource that can be utilized by the installer and the authority having jurisdiction for a solution. It is not the intent of this standard to require compliance with NFPA 13 when this standard is silent on a subject.

The revised language of NFPA 101 Section 30.3.5.2, which occurred between the 2015 and the 2018 editions, from "four or fewer stories above grade plane" to "four stories in height" was revised to match the language in NFPA 13R, not to change the method by which the number of stories are calculated. The use of "stories in height" in NFPA 13R predates the time in which NFPA 101 began using such terminology. The change to NFPA 101 has inadvertently provided a reference to the "stories in height" requirement found in NFPA 101. This does not appear to have been intended, as can be seen in the Annex of NFPA 13R Section 1.1, as well as the First Revision information provided above. It is the petitioner's opinion that NFPA 101 and NFPA 13R intend to limit the use of NFPA 13R systems to buildings that are 4 stories above grade or less, not 4 stories above the level of exit discharge.

Enter the Petitioner's question concerning an interpretation of the FFPC:

Is a multifamily apartment building that is 4 stories above grade plane and 1 story below grade plane with the level of exit discharge on the story below grade plane permitted to use a NFPA 13R sprinkler system?

Boards Answer: No

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It is the boards majority opinion that the stories in height shall be counted starting with the level of exit discharge and ending with the highest occupiable story containing the occupancy considered as stipulated in NFPA 101 4.6.3 (see below).

NFPA 101 4.6.3 Stories in Height.

4.6.3 Stories in Height. Unless otherwise specified in another provision of this *Code*, the stories in height of a building shall be determined as follows:

(1) The stories in height shall be counted starting with the level of exit discharge and ending with the highest occupiable story containing the occupancy considered.

(2) Stories below the level of exit discharge shall not be counted as stories.

(3) Interstitial spaces used solely for building or process systems directly related to the level above or below shall not be considered a separate story.

(4) A mezzanine shall not be counted as a story for the purpose of determining the allowable stories in height.

(5) For purposes of application of the requirements for occupancies other than assembly, health care, detention, and correctional, and ambulatory health care, where a maximum one-story above grade parking structure, enclosed, open, or a combination thereof, of Type I or Type II (222) construction or open Type IV construction, with grade entrance, is provided under a building, the number of stories shall be permitted to be measured from the floor above such a parking area.

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Region 1 - Delegate: Vacant
Alternate: N/A*

Region 2 - Delegate: Vacant
Alternate: N/A*

Region 3 - Delegate: **James Groff**, Jacksonville Fire Rescue. (Committee Chair)
Alternate: **Robert Growick** Division Chief /Fire Marshall City of St. Augustine

Region 4 - Delegate: **Cheryl Edwards**, Lakeland Fire Rescue
Alternate: **Scott Finley** Auburndale Fire Department

Region 5 - Delegate: **Anthony Apfelbeck**, Altamonte Springs Building and Fire Safety Department
Alternate: **Tim Ippolito**, Casselberry F. R.

Region 6 - Delegate: **Robert Salvaggio**, Cape Corral Fire Rescue
Alternate: **Janet Washburn**, Bonita Springs Fire Control and Rescue District

Region 7 - Delegate: **Matthew E. Welhaf**, Boca Raton Fire Rescue Services Department
Alternate: **(Kenneth) Sean Brown**, Broward Sheriff Fire Rescue & Emergency Services Department.

Committee Region Map



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