



## Public Input No. 184-NFPA 101-2024 [ Section No. 3.3.70.1 ]

### **3.3.70.1\*** One- and Two-Family Dwelling Unit.

A building that contains not more than two dwelling units, each dwelling unit occupied by members of a single family with not more than three outsiders, if any, accommodated in rented rooms, or utilized as short-term rental housing units .

### **3.3.XX\*** Short-Term Rental Housing Unit.

An entire dwelling unit that is advertised or offered to the public as a place rented to an individual tenant, a family or multiple tenants under a single lease for periods of less than 30 consecutive days.

### **A.3.3.XX** Short-Term Rental Housing Unit.

Where a dwelling unit is rented to occupants for a period of less than one month ( e.g., nightly, weekly), the occupants are considered transient and are expected to have less familiarity with their surroundings than occupants who rent a property for a month or longer. The requirements of Section 24.6 are intended to bridge the gap between one- and two-family dwellings and lodging or rooming houses for dwelling units utilized for short-term rental housing. Where individual sleeping rooms are rented out, the property might be a lodging or rooming house if the dwelling unit is occupied by a family and more than three outsiders in rented rooms, or if it is occupied only by renters of individual sleeping rooms with shared common space. Where a dwelling unit is wholly rented and occupied by a group, it is expected that the group members will have a higher degree of awareness of the activities of other group members than occupants of individually rented sleeping rooms. This increased awareness generally lowers the life safety risk and the more rigorous requirements applicable to lodging or rooming houses or hotels and dormitories should not be warranted.

( SAF-RES)

## Statement of Problem and Substantiation for Public Input

This submittal was created by the Short Term Rental Housing Task Group. We felt there was a need for a definition of a Short Term Rental Housing Unit to bridge the gap between One-and Two-Family Dwellings and Lodging and Rooming.

This will coincide with submitted proposals in Chapter 24.

## Submitter Information Verification

**Submitter Full Name:** Robert Dufault  
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**Affiliation:** Short Term Rental Housing Task Group  
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**Submittal Date:** Fri May 31 09:27:20 EDT 2024  
**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6725-NFPA 101-2024](#)

**Statement:** This new definition for "Short Term Rental Housing" will allow short term rentals to be regulated by AHJ's using the Code. The definition will clearly define what occupancies will be regulated and the addition to the One- and Two-family dwellings definition allows the use of chapter 24 requirements to be used to regulate short term rental housing



## Public Input No. 220-NFPA 101-2024 [ Section No. 24.2.8 ]

### **24.2.8\*** Grab Bars and Stanchions.

#### **24.2.8.1** General.

##### **24.2.8.1.1**

New bathtubs, bathtub-shower combinations, showers, and ~~showers~~ water closets shall be provided with grab bars or stanchions unless otherwise permitted by 24.2.8.1.2.

##### **24.2.8.1.2\***

Grab bars or stanchions shall not be required in showers where the transition from the room floor to the shower floor does not exceed 0.5 in. (13 mm) in height and all shower surfaces are slip resistant when wet.

##### **24.2.8.1.3\***

Where provided for bathing- and  ~~,~~ showering, and toilets, grab bars or stanchions shall comply with 24.2.8.2 through 24.2.8.4 5 .

##### **24.2.8.1.4**

Where grab bars and stanchions are provided for ~~increased safety or usability of~~ accessible water closets , ~~grab bars or stanchions~~ and ambulatory accessible water closet compartments, they shall comply with the requirements of ICC A117.1, *Accessible and Usable Buildings and Facilities*, ~~for either ambulatory accessible use or other accessibility-based uses~~ .

##### **24.2.8.1.5**

All dimensions shall be measured to the centerline of the grab bar or stanchion unless otherwise stated.

#### **24.2.8.2\*** Vertical Grab Bar or Stanchion.

##### **24.2.8.2.1** Bathtubs and Bathtub-Shower Combinations.

For bathtubs, including bathtub-shower combinations, either of the following shall be provided:

- (1) A vertical grab bar on the control end wall or the end wall opposite the control end wall of the bathtub or bathtub-shower combination in accordance with 24.2.8.2.3
- (2) A vertical stanchion in accordance with 24.2.8.2.3

##### **24.2.8.2.2** Showers.

For showers, either of the following shall be provided:

- (1) A vertical grab bar in accordance with 24.2.8.2.4, or a vertical stanchion in accordance with 24.2.8.2.5
- (2) A vertical grab bar in accordance with 24.2.8.2.5

**24.2.8.2.3\* Bathtub End Wall Vertical Grab Bars.**

End wall vertical grab bars for bathtubs shall comply with all of the following:

- (1) Vertical grab bars shall have a length of not less than 36 in. (914 mm).
- (2) Vertical grab bars shall be located between 24 in. (610 mm) minimum and 60 in. (686 mm) maximum above the finished floor.
- (3) Vertical grab bars shall be installed at the end that is least obstructed for entry and egress.
- (4) The horizontal position, relative to the exterior plane of the bathtub or bathtub-shower combination, of vertical grab bars shall be located in accordance with either of the following:
  - (a) Between 9 in. (228 mm) and 12 in. (305 mm) inward
  - (b) Between 2 in. (51 mm) inward from the exterior plane to 6 in. (152 mm) outside the exterior plane

**24.2.8.2.4 Shower Grab Bars.**

Vertical grab bars for showers shall comply with all of the following:

- (1) Vertical grab bars shall have a length of not less than 36 in. (914 mm).
- (2) Vertical grab bars shall be located 24 in. (610 mm) minimum and 60 in. (1524 mm) maximum above the finished floor.
- (3) Vertical grab bars shall be located within 28 in. (711 mm), measured horizontally, of the center of the entrance opening to the shower at the sill, threshold, or other boundary between wet interior and dry exterior underfoot conditions.

**24.2.8.2.5\* Vertical Stanchions for Bathtubs and Showers.**

Vertical stanchions shall be fixed to the floor or the bathtub rim, if of steel construction, and either the room ceiling or an adjacent wall and shall comply with all of the following:

- (1) Stanchions shall be located within 6 in. (150 mm), measured horizontally, of the outside or outer edge of the bathtub, bathtub-shower combination, or shower.
- (2) Stanchions shall be located within 30 in. (760 mm), measured horizontally, of the vertical plane of the control end wall of a bathtub or bathtub-shower combination.
- (3) Stanchions shall be located within 28 in. (711 mm), measured horizontally, of the center of the entrance opening to the shower at the sill, threshold, or other boundary between wet interior and dry exterior underfoot conditions.

**24.2.8.3 Bathtub Nonaccess Side Grab Bar or Horizontal Stanchion.**

For bathtubs and bathtub-shower combinations, a diagonal grab bar in accordance with 24.2.8.3.1, a horizontal grab bar in accordance with 24.2.8.3.2, or a horizontal stanchion in accordance with 24.2.8.3.3 shall be provided at the nonaccess side of the bathtub.

**24.2.8.3.1\* Nonaccess Side Diagonal Grab Bars.**

Diagonal grab bars shall comply with all of the following:

- (1) Diagonal grab bars shall have a length of not less than 36 in. (914 mm).
- (2) Diagonal grab bars shall be located so the higher end is closer to the control end wall.
- (3) Higher ends of diagonal grab bars shall be located a maximum of 12 in. (305 mm) from the control end wall.
- (4) Diagonal grab bar slope, relative to level, shall be 30 degrees minimum to 60 degrees maximum.
- (5) Lower ends of diagonal grab bars shall be located 32 in. (813 mm) minimum and 35 in. (889 mm) maximum above the finished floor level.

**24.2.8.3.2 Nonaccess Side Horizontal Grab Bars.**

Horizontal grab bars shall comply with all of the following:

- (1) Horizontal grab bars shall be located 32 in. (813 mm) minimum and 35 in. (889 mm) maximum above the finished floor level.
- (2) Horizontal grab bars shall have a minimum length of 36 in. (914 mm) centered within the length of the bathtub.

**24.2.8.3.3 Nonaccess Side Horizontal Stanchions.**

Nonaccess side horizontal stanchions, extending full length and fixed between end walls of the bathtub, shall be located 32 in. (813 mm) minimum and 35 in. (889 mm) maximum above the finished floor level.

**24.2.8.4 Water Closets**

**24.2.8.4.1** Water closets shall be provided with grab bars or stanchions complying with the following where all location dimensions are to the centerline of the grab bar or stanchion and, unless otherwise specified, to the water closet at the center of the front projection of the water closet bowl.

**24.2.8.4.2.** On at least one of the two sides of the toilet and within a 16-inch (400 mm) horizontal distance from, and in front of, the center of the front lip of the toilet bowl, the grab bar(s) or stanchion(s), oriented vertically, diagonally or horizontally, shall be provided within a vertical plane parallel to the front-to-back centerline of the water closet.

**24.2.8.4.2.1.** If oriented horizontally, the grab bar or stanchion shall be graspable at a point 32 in. (810 mm) minimum and 36 in. (910 mm) maximum above the finished floor level and within 12 inches (305 mm) in front of and behind the front of the water closet bowl. ,

**24.2.8.4.2.2.** If oriented vertically, the grab bar or stanchion shall be graspable at a point 32 in (810 mm) minimum and 60 inches (1520 mm) above the finished floor level and within 12 inches (305 mm) in front of the front of the water closet bowl.

**24.2.8.4.2.3** If oriented diagonally, between 30 and 60 degrees to horizontal, the lower end closer to the front of the water closet bowl shall be a minimum of 32 inches (810 mm) above the finished floor level and no more than 12 inches (305 mm) in front of the front lip of the toilet bowl.

**24.2.8.4.3** For a water closet adjacent to a shower or bathtub with a grab bar or stanchion meeting the bathtub or shower requirements, as well as those specific to this section on water closets, a grab bar or stanchion shall be permitted to serve both the bathing and toileting facilities.

**24.2.8.5 \* Grab Bar and Stanchion Details.****24.2.8.4 5.1**

Grab bars and stanchions shall be circular in cross section with a minimum diameter of 1¼ in. (32 mm) and a maximum diameter of 2 in. (51 mm).

**24.2.8.4 5.2**

Where adjacent to a surface or water control, grab bars and stanchions shall provide a clearance for hand grasp of 1½ in. (38 mm) minimum.

**24.2.8.4 5.3**

Clearance or spacing with other surfaces, which shall be free of sharp or abrasive elements, shall comply with ICC A117.1, *Accessible and Usable Buildings and Facilities*.

**24.2.8.4 5.4**

Grab bars and stanchions shall not rotate within their fittings.

**24.2.8.4 5.5**

Grab bars and stanchions shall be designed and constructed to maintain, throughout their service life and with the effects of water, the structural loading conditions in accordance with the building code.

**24.2.8.4 5.6**

Components subject to water intrusion shall be provided with permanent drainage, such as weep holes, to reduce the time during which components, such as voids for fixing plates, with screws, visually concealed behind cover plates, are subject to moisture.

**Additional Proposed Changes**

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
Exhibits- Public Input No 220- NFPA_101-2024_Section_24.2.8.pdf	Exhibit for public input No. 220- NFPA Section 24.2.8 regarding epidemiology of injuries	
.1717515538722		
.1717515633008	Exhibit for Jake Pauls' Public Input No 220 NFPA 101	

**Statement of Problem and Substantiation for Public Input**

Unlike bathing which has been addressed in NFPA codes, in terms of usability and safety, since 2018, 2021 and 2024 editions, use of water closets for toileting was left for other standards to address (e.g., ANSI A117.1). However all efforts in recent years to have A117 address the usability and safety of toileting has not led to changes in the scope or detailed requirements of that standard to focus on much more than wheelchair accessibility in relation to bathrooms. A117.1 has not succeeded to address—beyond water closet compartments—the needs of ambulatory persons with other disabilities or needs with toileting. Thus there is a need for NFPA's ANSI requirements, namely NFPA 101 and 5000, to expand their requirements for use of grab bars and stanchions to the matter of water closet use generally to the larger population.

From a safety point of view (as addressed early in a comprehensive PowerPoint presentation— assembled by Jake Pauls a few years ago (with a few opening slides, of epidemiological data capable of being printed, submitted)—unlike bathing/showering, toileting cannot be given up or postponed in ones daily life. Thus older users of bathroom facilities are able to reduce their exposure to defective stairs, bathtubs and showers but hey cannot do so for water closets. The injury ramifications of this are detailed in the first section of the PowerPoint presentation based on NEISS injury data. Water closet related injuries increase very dramatically among older users. (Some or all of the PowerPoint presentation is available for Committee viewing and discussion as part of the meetings in Kansas City later this year.

In summary, the time has come to complete the work started with the 2018, 2021 and 2024 editions of NFPA 101 (with this same 2027 edition proposal also being acted on by the responsible NFPA TCs and TCC on NFPA 5000). Thus, while submitted for NFPA 101, it is the submitter's intention that the same changes be made in the 2027 edition of NFPA 5000.

**Submitter Information Verification**

**Submitter Full Name:** Jake Pauls

**Organization:** Jake Pauls Consulting Services

**Affiliation:** The proposal is submitted in an individual capacity although it is consistent with concerns of APHA that I represent on NFPA Cttees

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**Submittal Date:** Mon Jun 03 11:24:09 EDT 2024

**Committee:** SAF-RES

## Committee Statement

**Resolution:** The substantiation did not provide evidence that the new requirements would not provide issues with access to toilets for those in wheelchairs and walkers. The stanchions may also obstruct the escape paths or paths of egress in the dwelling. The installation of stanchions could cause water damage issues. There was no specific location criteria provided as to where the stanchions should be provided. The data that was provided did not specify just one- and two-family dwellings and was not up-to-date. The grab bars and stanchions section (24.2.8) should be moved to one of the core chapters as opposed to a specific occupancy chapter.



## Public Input No. 185-NFPA 101-2024 [ New Section after 24.5.2 ]

### 24.6 Short-Term Rental Unit

#### 24.6 Short-Term Rental Unit

##### 24.6.1 General

###### 24.6.1.1

The provisions of Chapter 24 and this section shall apply to Short-Term Rental Housing Unit.

###### 24.6.1.2

The provisions of Chapter 26 shall apply to Short-term Rental Housing Units where there are 10 or more sleeping accommodations.

###### 24.6.1.2

Buildings shall have an approved, legible address number placed in a position visible from the street or road fronting the property in accordance with NFPA 1.

###### 24.6.1.3

Outdoor fires, open fires, and cooking equipment shall be in compliance with NFPA 1.

##### 24.6.2 Occupancy Safety

###### 24.6.2.1\*

A floor diagram reflecting the actual floor arrangement, exit locations, room identification, and fire extinguisher locations shall be posted in a location and manner acceptable to the AHJ.

###### A.24.6.2.1

A sample floor diagram is shown in figure A.24.6.2.1:

###### 24.6.2.2\*

Upon request the floorplan required in 24.6.2.1 shall be made available to the AHJ upon request.

###### A.24.6.2.2

A safety plan is a useful tool for both guests and AHJ's to verify the safety of the location.

The safety plan for a short-term rental unit should include the following:

- (1) Name and contact information of responsible party.
- (2) The procedure for a guest to report an emergency and the means of communicating that procedure to guests.
- (3) A graphic illustration of the full floor plan of the dwelling unit or sleeping unit with a short-term rental unit that includes the following:
  - (4) The location of each sleeping space.
  - (5) Two escape paths for each sleeping space, including the path to the nearest outside exit door and to a designated emergency escape and rescue opening for the sleeping space.
  - (6) The location of portable fire extinguishers, smoke alarms, carbon monoxide alarms, and emergency escape ladders if provided.

(7) Location of fuel-fired equipment and appliances.

(8) (4) Safety equipment records, including the following:

(9) Manufacturing date of each smoke alarm, as marked on the back of the alarm.

(10) Manufacturing date of each carbon monoxide alarm, as marked on the back of the alarm.

(11) Manufacturing date of portable fire extinguishers.

#### A.24.6.2.1

The floor plan should include the following:

#### 24.6.2.2

A fire extinguisher shall be installed on each level in a location along the path of egress or otherwise acceptable to the AHJ.

## Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
Floor_Plan.png	Sample Floor Plan	

## Statement of Problem and Substantiation for Public Input

The Short-Term Rental Housing Task Group feels there is a need for a section in 101 to be established specifically for Short Term Rental Housing. The task group felt dwellings with under ten occupants should fall under single family dwellings. However, it should have further requirements as stated in the submittal.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 184-NFPA 101-2024 [Section No. 3.3.70.1]</u>	The definitions of this new section.

## Submitter Information Verification

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**Submittal Date:** Fri May 31 09:40:46 EDT 2024  
**Committee:** SAF-RES

## Committee Statement

**Resolution:** FR-6600-NFPA 101-2024

**Statement:** Based upon direction from the CC, a task group was developed to create regulations around short-term rental housing. Based on TG deliberations and history of fires in STRH, these requirements were added to provide a higher level of safety than that of a one- and two-family dwelling unit while not triggering compliance with the other residential chapters. The task group will continue to work on the requirements for the second draft meeting.



## Public Input No. 21-NFPA 101-2024 [ New Section after 26.2.3.5.1 ]

### 26.2.3.5.1.1

Panic hardware and fire exit hardware shall comply with Section 7.2.1.7.

### Statement of Problem and Substantiation for Public Input

26.2.3.5.1 prohibits locking doors "...in any means of escape against egress when the building is occupied." Section 7.2.1.7 specifies the installation and operation panic hardware and fire exit hardware devices. More importantly, 7.2.1.7.4 expressly prohibits the installation of "...any locking device, set screw, or other arrangement that prevents the release of the latch..." ensuring that doors equipped with panic hardware and fire exit hardware devices are not locked against egress or otherwise impaired under any conditions. While the Code requires panic hardware and fire exit hardware devices to be used in Assembly, Educational, and Day-Care occupancies and in high-hazard locations, these devices are used in lodging and rooming houses even though their use is not explicitly required.

The proposed new section ensures the installation of panic hardware and fire exit hardware devices is consistent throughout the Code.

### Submitter Information Verification

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**Submittal Date:** Wed Jan 17 14:33:56 EST 2024

**Committee:** SAF-RES

### Committee Statement

**Resolution:** The requirement is not necessary. Egress requirements of the chapter, including panic hardware, already direct to Chapter 7.



## Public Input No. 22-NFPA 101-2024 [ New Section after 28.2.2.2.1 ]

### 28.2.2.2.1.1

Panic hardware and fire exit hardware shall comply with Section 7.2.1.7.

### Statement of Problem and Substantiation for Public Input

The Code requires panic hardware and fire exit hardware devices to be used in Assembly, Educational, and Day-Care occupancies and in high-hazard locations. While 28.2.2.2.1 permits doors complying with Section 7.2.1 to be used, panic hardware and fire exit hardware aren't required to comply with the provisions and requirements of Section 7.2.1.7 since Hotels and Dormitories occupancies don't require their use. For example, 7.2.1.7 specifies the mounting heights of crossbars and push-pads of panic hardware and fire exit hardware, as well as the minimum length of the active crossbars and push-pads. 7.2.1.7.3 specifies the maximum force permitted to release the latches. And, 7.2.1.7.4 prohibits the installation of locks or other devices that prevent or otherwise impair the operation of panic hardware and fire exit hardware devices.

The proposed new section ensures the installation and operation of panic hardware and fire exit hardware devices are consistent throughout the Code.

### Submitter Information Verification

**Submitter Full Name:** Keith Pardoe

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**Submittal Date:** Wed Jan 17 15:19:23 EST 2024

**Committee:** SAF-RES

### Committee Statement

**Resolution:** The requirement is not necessary. Egress requirements of the chapter, including panic hardware, already direct to Chapter 7.



## Public Input No. 175-NFPA 101-2024 [ Section No. 28.3.4.3.2 ]

### 28.3.4.3.2\*

In hotels and dormitories that are required by 28.3.4 to have a fire alarm system, the audible alarm notification signal provided in sleeping rooms of guest rooms or guest suites that is activated by the fire alarm system shall be a 520-Hz low-frequency signal in accordance with 9.6.2.10.3.

### Statement of Problem and Substantiation for Public Input

This proposal has been generated by the newly-formed Low Frequency Alarm Committee (LFAC) which consists of a broad scope of representatives who are examining more closely the pros and cons of low frequency alarms in all occupancies and their spaces and rooms.

The purpose of this proposal is to act as a starting point and placeholder. The modifier “520-Hz” is proposed for deletion as the tone characteristics are defined in NFPA 72 and is unnecessary here. Additional changes to low frequency alarm terminology may follow. Additional changes are proposed to remove “520-Hz” from all locations of this code (Chapters 28 and 30 and Annex A).

The LFAC does not believe this proposal to be the end-all for this Section as the task group is in the process of reviewing all aspects with the intent to have greater insight and recommendations within the next year.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 174-NFPA 101-2024 [Section No. 9.6.2.10.3]</a>	

### Submitter Information Verification

**Submitter Full Name:** Daniel Buuck  
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**Submittal Date:** Thu May 30 16:26:13 EDT 2024  
**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6663-NFPA 101-2024](#)

**Statement:** The modifier “520-hz” should be deleted as the frequency characteristics are defined in NFPA 72 , UL 217, and UL 464 and is unnecessary in NFPA 101. Removing the “520 Hz” reference allows NFPA 72 to make modifications as technically necessary without impacting the application of NFPA 101.



## Public Input No. 176-NFPA 101-2024 [ Section No. 28.3.4.6.1 ]

### 28.3.4.6.1\*

In hotels and dormitories that are required by 28.3.4 to have a fire alarm system, the audible alarm notification signal provided in sleeping rooms of guest rooms or guest suites that is activated by smoke alarms shall be a 520-Hz low-frequency signal in accordance with 9.6.2.10.3.

### Statement of Problem and Substantiation for Public Input

This proposal has been generated by the newly-formed Low Frequency Alarm Committee (LFAC) which consists of a broad scope of representatives who are examining more closely the pros and cons of low frequency alarms in all occupancies and their spaces and rooms.

The purpose of this proposal is to act as a starting point and placeholder. The modifier “520-Hz” is proposed for deletion as the tone characteristics are defined in NFPA 72 and is unnecessary here. Additional changes to low frequency alarm terminology may follow. Additional changes are proposed to remove “520-Hz” from all locations of this code (Chapters 28 and 30 and Annex A).

The LFAC does not believe this proposal to be the end-all for this Section as the task group is in the process of reviewing all aspects with the intent to have greater insight and recommendations within the next year.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 174-NFPA 101-2024 [Section No. 9.6.2.10.3]</a>	

### Submitter Information Verification

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**Submission Date:** Thu May 30 16:30:48 EDT 2024  
**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6664-NFPA 101-2024](#)

**Statement:** The modifier “520-hz” should be deleted as the frequency characteristics are defined in NFPA 72 , UL 217, and UL 464 and is unnecessary in NFPA 101. Removing the “520 Hz” reference allows NFPA 72 to make modifications as technically necessary without impacting the application of NFPA 101.



## Public Input No. 236-NFPA 101-2024 [ New Section after 28.3.4.7.5 ]

### 28.3.4.8 Fuel-Gas Detection

28.3.4.8.1 Fuel-gas alarms or fuel-gas detectors shall in accordance with Section 9.16 be provided in new hotels and dormitories containing a permanently installed fuel-gas-burning appliance.

28.3.4.8.2 Fuel-gas alarms or fuel-gas detectors shall be installed near fuel-gas-burning appliances in accordance with the manufacturer's published instructions and NFPA 715.

28.3.4.8.3 Fuel-gas detectors are installed in accordance with, the alarm signal shall be automatically transmitted to an approved on-site location or to an off-premises location in accordance with NFPA 715.

### Statement of Problem and Substantiation for Public Input

This is one of three PI's seeking to protect occupants in new hotels, dormitories and apartment buildings from fires caused by natural gas or propane explosions or leaks. The PI is in response to recommendation by the National Transportation Safety Board (NTSB) in NTSB Report NTSB/PAR-19/01 PB2019-100722 Building Explosion and Fire Silver Spring, Maryland that the ICC "..... requires methane detection systems for all types of residential occupancies with gas service." The NTSB then re-emphasized the need for natural gas detectors in NTSB Report NTSB/PAR-21-01 Atmos Energy Corporation Natural Gas-Fueled Explosion Dallas, Texas. Discussions with the Staff from the NTSB in May 2024 regarding ongoing investigation PLD23LR002 from the UGI Corporation Natural Gas-Fueled Explosion and Fire on March 23, 2023 incident indicated the event may result in a continued recommendation for fuel gas detectors now expanded to include all buildings utilizing a fuel gas. The recommendations by the NTSB is supported by the 2018 NFPA report, Natural Gas and Propane Fires, Explosions and Leaks Estimates and Incidents - Marty Ahrens and Ben Evarts October 2018: Between 2012 and 2016 an estimated average of 4,200 U.S. home structure fires per year started with the ignition of natural gas that caused an average of 40 deaths per year. The report classifies homes as one- and two-family homes, including manufactured homes, and apartments and other multi-family housing. Natural gas or LP-Gas leaks have generally been increasing since 2007. The requirements in this PI are based on the 2023 edition of NFPA 715 standard, Installation for Fuel Gas Detection and Warning Equipment. The technical requirements in NFPA 715 were based on the Fire Protection Research Foundation (FPRF) report, Combustible Gas Dispersion in Residential Occupancies and Detector Location Analysis. The report studied combustible gas leaks and dispersion in residential buildings, as well as an analysis of combustible gas detector placement.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 234-NFPA 101-2024 [New Section after 9.15.3]</a>	
<a href="#">Public Input No. 238-NFPA 101-2024 [New Section after 30.3.4.6.3]</a>	
<a href="#">Public Input No. 234-NFPA 101-2024 [New Section after 9.15.3]</a>	
<a href="#">Public Input No. 238-NFPA 101-2024 [New Section after 30.3.4.6.3]</a>	

### Submitter Information Verification

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**Submittal Date:** Mon Jun 03 16:15:12 EDT 2024

**Committee:** SAF-RES

## Committee Statement

**Resolution:** [FR-6610-NFPA 101-2024](#)

**Statement:** In response to recommendation by the National Transportation Safety Board (NTSB) in NTSB Report NTSB/PAR-19/01 PB2019-100722 Building Explosion and Fire Silver Spring, Maryland, NTSB Report NTSB/PAR-21-01 Atmos Energy Corporation Natural Gas-Fueled Explosion Dallas, Texas, discussions with the Staff from the NTSB in May 2024, fuel-gas detections requirements were added. These requirements are supported by the 2018 NFPA report, Natural Gas and Propane Fires, Explosions and Leaks Estimates and Incidents - Marty Ahrens and Ben Everts. The requirements are based on the 2023 edition of NFPA 715 standard, Installation for Fuel Gas Detection and Warning Equipment.



## Public Input No. 23-NFPA 101-2024 [ New Section after 29.2.2.2.1 ]

### 29.2.2.2.1.1

Panic hardware and fire exit hardware shall comply with Section 7.2.1.7.

### Statement of Problem and Substantiation for Public Input

The Code requires panic hardware and fire exit hardware devices to be used in Assembly, Educational, and Day-Care occupancies and in high-hazard locations. While 29.2.2.2.1 permits doors complying with Section 7.2.1 to be used, panic hardware and fire exit hardware aren't required to comply with the provisions and requirements of Section 7.2.1.7 since Hotels and Dormitories occupancies don't require their use. For example, 7.2.1.7 specifies the mounting heights of crossbars and push-pads of panic hardware and fire exit hardware, as well as the minimum length of the active crossbars and push-pads. 7.2.1.7.3 specifies the maximum force permitted to release the latches. And, 7.2.1.7.4 prohibits the installation of locks or other devices that prevent or otherwise impair the operation of panic hardware and fire exit hardware devices.

The proposed new section ensures the installation and operation of panic hardware and fire exit hardware devices are consistent throughout the Code.

### Submitter Information Verification

**Submitter Full Name:** Keith Pardoe

**Organization:** Pardoe Consulting LLC

**Affiliation:** The Safe Doors Save Lives Foundation, Inc.

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Wed Jan 17 15:51:18 EST 2024

**Committee:** SAF-RES

### Committee Statement

**Resolution:** The requirement is not necessary. Egress requirements of the chapter, including panic hardware, already direct to Chapter 7.



## Public Input No. 348-NFPA 101-2024 [ Section No. 30.2.4.4 ]

### 30.2.4.4

Dwelling units with an approved automatic sprinkler system in accordance with 9.7, shall be permitted to have access to a single exit, provided that one of the following conditions is met:

- (1) The dwelling unit has an exit door opening directly to the street or yard at the finished ground level.
- (2) The dwelling unit has direct access to an outside stair that complies with 7.2.2 and serves a maximum of two units, both of which are located on the same story.
- (3) The dwelling unit has direct access to an interior stair that serves only that unit and is separated from all other portions of the building by fire barriers having a minimum 1-hour fire resistance rating, with no opening therein.

### Statement of Problem and Substantiation for Public Input

All new apartment dwelling units in 30.3.5 are required to have a sprinkler system. This proposal adds this point to the means of egress section to clarify the application of single exits.

### Submitter Information Verification

**Submitter Full Name:** Jeffrey Hugo

**Organization:** National Fire Sprinkler Association (NFSA)

**Affiliation:** National Fire Sprinkler Association (NFSA)

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Tue Jun 04 09:13:07 EDT 2024

**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6607-NFPA 101-2024](#)

**Statement:** The current requirements of chapter chapter 30.3.5 require all new apartment dwelling units to have a sprinkler system. The new language adds this point to the means of egress section to clarify the application of single exits.



## Public Input No. 177-NFPA 101-2024 [ Section No. 30.3.4.3.2 ]

### 30.3.4.3.2\*

In apartment buildings that are required by 30.3.4.1 to have a fire alarm system, the audible alarm notification signal provided in sleeping rooms of dwelling units that is activated by the fire alarm system shall be a 520-Hz low-frequency signal in accordance with 9.6.3.9.

### Statement of Problem and Substantiation for Public Input

This proposal has been generated by the newly-formed Low Frequency Alarm Committee (LFAC) which consists of a broad scope of representatives who are examining more closely the pros and cons of low frequency alarms in all occupancies and their spaces and rooms.

The purpose of this proposal is to act as a starting point and placeholder. The modifier “520-Hz” is proposed for deletion as the tone characteristics are defined in NFPA 72 and is unnecessary here. Additional changes to low frequency alarm terminology may follow. Additional changes are proposed to remove “520-Hz” from all locations of this code (Chapters 28 and 30 and Annex A).

The LFAC does not believe this proposal to be the end-all for this Section as the task group is in the process of reviewing all aspects with the intent to have greater insight and recommendations within the next year.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 174-NFPA 101-2024 [Section No. 9.6.2.10.3]</a>	

### Submitter Information Verification

**Submitter Full Name:** Daniel Buuck  
**Organization:** National Association of Home Builders  
**Affiliation:** Low Frequency Alarm Committee  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submission Date:** Thu May 30 16:31:59 EDT 2024  
**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6665-NFPA 101-2024](#)

**Statement:** The modifier “520-hz” should be deleted as the frequency characteristics are defined in NFPA 72 , UL 217, and UL 464 and is unnecessary in NFPA 101. Removing the “520 Hz” reference allows NFPA 72 to make modifications as technically necessary without impacting the application of NFPA 101.



## Public Input No. 178-NFPA 101-2024 [ Section No. 30.3.4.5.1 ]

### 30.3.4.5.1\*

In apartment buildings that are required by 30.3.4 to have a fire alarm system, the audible alarm notification signal provided in sleeping rooms that is activated by smoke alarms shall be a 520-Hz low-frequency signal in accordance with 9.6.2.10.3.

### Statement of Problem and Substantiation for Public Input

This proposal has been generated by the newly-formed Low Frequency Alarm Committee (LFAC) which consists of a broad scope of representatives who are examining more closely the pros and cons of low frequency alarms in all occupancies and their spaces and rooms.

The purpose of this proposal is to act as a starting point and placeholder. The modifier “520-Hz” is proposed for deletion as the tone characteristics are defined in NFPA 72 and is unnecessary here. Additional changes to low frequency alarm terminology may follow. Additional changes are proposed to remove “520-Hz” from all locations of this code (Chapters 28 and 30 and Annex A).

The LFAC does not believe this proposal to be the end-all for this Section as the task group is in the process of reviewing all aspects with the intent to have greater insight and recommendations within the next year.

### Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 174-NFPA 101-2024 [Section No. 9.6.2.10.3]</u>	

### Submitter Information Verification

**Submitter Full Name:** Daniel Buuck  
**Organization:** National Association of Home Builders  
**Affiliation:** Low Frequency Alarm Committee  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submission Date:** Thu May 30 16:32:55 EDT 2024  
**Committee:** SAF-RES

### Committee Statement

**Resolution:** FR-6666-NFPA 101-2024

**Statement:** The modifier “520-hz” should be deleted as the frequency characteristics are defined in NFPA 72 , UL 217, and UL 464 and is unnecessary in NFPA 101. Removing the “520 Hz” reference allows NFPA 72 to make modifications as technically necessary without impacting the application of NFPA 101.



## Public Input No. 238-NFPA 101-2024 [ New Section after 30.3.4.6.3 ]

### 30.3.4.7 Fuel-Gas Detection

30.3.4.7.1 Fuel-gas alarms or fuel-gas detectors shall in accordance with Section 9.16 be provided in new hotels and dormitories containing a permanently installed fuel-gas-burning appliance.

30.3.4.7.2 Fuel-gas alarms or fuel-gas detectors shall be installed near fuel-gas-burning appliances in accordance with the manufacturer's published instructions and NFPA 715.

30.3.4.7.3 Fuel-gas detectors are installed in accordance with, the alarm signal shall be automatically transmitted to an approved on-site location or to an off-premises location in accordance with NFPA 715.

...

## Statement of Problem and Substantiation for Public Input

This is one of three PI's seeking to protect occupants in new hotels, dormitories and apartment buildings from fires caused by natural gas or propane explosions or leaks. The PI is in response to recommendation by the National Transportation Safety Board (NTSB) in NTSB Report NTSB/PAR-19/01 PB2019-100722 Building Explosion and Fire Silver Spring, Maryland that the ICC "..... requires methane detection systems for all types of residential occupancies with gas service." The NTSB then re-emphasized the need for natural gas detectors in NTSB Report NTSB/PAR-21-01 Atmos Energy Corporation Natural Gas-Fueled Explosion Dallas, Texas. Discussions with the Staff from the NTSB in May 2024 regarding ongoing investigation PLD23LR002 from the UGI Corporation Natural Gas-Fueled Explosion and Fire on March 23, 2023 incident indicated the event may result in a continued recommendation for fuel gas detectors now expanded to include all buildings utilizing a fuel gas. The recommendations by the NTSB is supported by the 2018 NFPA report, Natural Gas and Propane Fires, Explosions and Leaks Estimates and Incidents - Marty Ahrens and Ben Evarts October 2018: Between 2012 and 2016 an estimated average of 4,200 U.S. home structure fires per year started with the ignition of natural gas that caused an average of 40 deaths per year. The report classifies homes as one- and two-family homes, including manufactured homes, and apartments and other multi-family housing. Natural gas or LP-Gas leaks have generally been increasing since 2007. The requirements in this PI are based on the 2023 edition of NFPA 715 standard, Installation for Fuel Gas Detection and Warning Equipment. The technical requirements in NFPA 715 were based on the Fire Protection Research Foundation (FPRF) report, Combustible Gas Dispersion in Residential Occupancies and Detector Location Analysis. The report studied combustible gas leaks and dispersion in residential buildings, as well as an analysis of combustible gas detector placement.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 234-NFPA 101-2024 [New Section after 9.15.3]</a>	
<a href="#">Public Input No. 236-NFPA 101-2024 [New Section after 28.3.4.7.5]</a>	
<a href="#">Public Input No. 234-NFPA 101-2024 [New Section after 9.15.3]</a>	
<a href="#">Public Input No. 236-NFPA 101-2024 [New Section after 28.3.4.7.5]</a>	

## Submitter Information Verification

**Submitter Full Name:** Rick Trieste

**Organization:** Consolidated Edison Company of  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submission Date:** Mon Jun 03 16:20:12 EDT 2024  
**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6611-NFPA 101-2024](#)

**Statement:** In response to recommendation by the National Transportation Safety Board (NTSB) in NTSB Report NTSB/PAR-19/01 PB2019-100722 Building Explosion and Fire Silver Spring, Maryland, NTSB Report NTSB/PAR-21-01 Atmos Energy Corporation Natural Gas-Fueled Explosion Dallas, Texas, discussions with the Staff from the NTSB in May 2024, fuel-gas detections requirements were added. These requirements are supported by the 2018 NFPA report, Natural Gas and Propane Fires, Explosions and Leaks Estimates and Incidents - Marty Ahrens and Ben Evarts. The requirements are based on the 2023 edition of NFPA 715 standard, Installation for Fuel Gas Detection and Warning Equipment.



## Public Input No. 57-NFPA 101-2024 [ New Section after 31.7.5.1 ]

### TITLE OF NEW CONTENT

Valet trash services shall be permitted only in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 31.3.5 , ...

### Statement of Problem and Substantiation for Public Input

The introduction of combustible materials in apartment buildings should be limited only to spaces which are protected by an approved automatic sprinkler system. The possibility of an uncontrolled fire in a residential occupancy, especially within the means of egress, presents an unreasonable safety risk to building occupants.

This Input seeks to provide clear wording to address an issue that was presented to the Technical Committee as a Tentative Interim Amendment to the 2024 edition of the Code which was rejected, in part, due to the lack of clarity of intent. The reference for compliance with sprinkler system design was linked to Section 31.5 of the Code in order to incorporate the exceptions for automatic sprinkler protection recognized for existing apartment buildings.

### Submitter Information Verification

**Submitter Full Name:** Kenneth Bush

**Organization:** Maryland State Fire Marshals O

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Wed Mar 27 16:18:24 EDT 2024

**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6627-NFPA 101-2024](#)

**Statement:** The introduction of combustible materials in apartment buildings should be limited only to spaces which are protected by an approved automatic sprinkler system. The possibility of an uncontrolled fire in a residential occupancy, especially within the means of egress, presents an unreasonable safety risk to building occupants.



## Public Input No. 187-NFPA 101-2024 [ Section No. A.24.1.1.2 ]

### A.24.1.1.2

The *Code* specifies that, wherever there are three or more living units in a building, the building is considered an apartment building and is required to comply with either Chapter 30 or Chapter 31, as appropriate. A townhouse unit is considered to be an apartment building if there are three or more units in the building. The type of wall required between units in order to consider them as separate buildings is normally established by the authority having jurisdiction. If the units are separated by a wall of sufficient fire resistance and structural integrity to be considered as separate buildings, the provisions of Chapter 24 apply to each townhouse. Condominium status is a form of ownership, not occupancy; for example, there are condominium warehouses, condominium apartments, and condominium offices.

The provisions of 24.1.1.2 state that, in one- and two-family dwellings, each dwelling unit can be “occupied by members of a single family with not more than three outsiders.” The *Code* does not define the term *family*. The definition of *family* might be subject to federal, state, and local regulations and might not be restricted to a person or a couple (two people) and their children. The following examples aid in differentiating between a single-family dwelling and a lodging or rooming house:

- (1) An individual or a couple (two people) who rent a house from a landlord and then sublease space for up to three individuals should be considered a family renting to a maximum of three outsiders, and the house should be regulated as a single-family dwelling in accordance with Chapter 24.
- (2) A house rented from a landlord by an individual or a couple (two people) in which space is subleased to 4 or more individuals, but not more than 16, should be considered and regulated as a lodging or rooming house in accordance with Chapter 26.
- (3) A residential building that is occupied by 4 or more individuals, but not more than 16, each renting from a landlord, without separate cooking facilities, should be considered and regulated as a lodging or rooming house in accordance with Chapter 26.

It is not the intent of the *Code* to restrict occupancy to persons related by blood, marriage, or adoption as in the traditional opinion of a family. Regulations affecting occupant safety under the *Life Safety Code* differ greatly from zoning regulations that attempt to control who may, and who may not, live in a residential area designated a “single family” zone. Community zoning regulations address problems of noise, pollution, littering, overcrowding, and traffic. Restricting occupancy of single-family housing based on the biological or legal relationships between its inhabitants bears no reasonable relationship to the goals of life safety.

A group of nonrelatives living together in a nontraditional group can be the “functional equivalent” of a more traditional family unit. The factors that must be considered by the authority having jurisdiction are whether the group shares the entire house other than individual bedrooms, lives, cooks, and functions together as a single housekeeping unit and is primarily nontransient is nontransient .

## Statement of Problem and Substantiation for Public Input

Primarily is too broad. As an AHJ it is difficult to determine what this means and what the cutoff would be.

## Submitter Information Verification

**Submitter Full Name:** Robert Dufault

**Organization:** Newport Fire Department  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Fri May 31 09:57:33 EDT 2024  
**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6605-NFPA 101-2024](#)

**Statement:** The word "Primarily" is too broad. An AHJ will find it difficult to determine what this means and what the cutoff would be.



## Public Input No. 355-NFPA 101-2024 [ Section No. A.24.2.8 ]

### A.24.2.8

The grab bars and stanchions required by 24.2.8 are designed to improve safety of showering, bathing and bathing-toileting by ambulatory users, typically entering and exiting a bath, bathtub-shower combination, or shower facility for showering while standing, or for other forms of activities in bathing plus toileting that can entail transition-transitions to/from a crouching or sitting position positions .

For grab bar and stanchion requirements appropriate for other uses and users, especially users with disabilities, refer to the requirements in ICC A117.1, *Accessible and Usable Buildings and Facilities*. Generally, the grab bars and stanchions specified for this *Code* will not interfere with other grab bars installed in accordance with the requirements of ICC A117.1, and they can contribute to meeting the requirements of ICC A117.1 and vice versa. For example, combination vertical and horizontal grab bars (e.g., in an L configuration), as addressed by ICC A117.1, can meet the requirements of this *Code* for a vertical grab bar. Similarly, requirements for a horizontal grab bar or horizontal stanchion on the nonaccess side or back wall for a bathtub are compatible.

Dimensions for grab bar and stanchion locations and other requirements are as compatible as possible with the widely used standard, ICC A117.1. ~~This led to a change in the way the height of horizontal and diagonal grab bars is stipulated — for example, as the height above the bathroom's finished floor level rather than the bathtub rim, which is variable depending on the overall form of the tub. It also makes the Code's height requirements more consistent — not only is the height of the upper and lower ends of vertical grab bars stipulated relative to the finished floor level, but all other orientations of grab bars are now addressed in the same way.~~

### Statement of Problem and Substantiation for Public Input

This simply updates the Annex note in relation to the addition of requirements for water closest in the 2027 edition and to reduce references to the ICC A117.1 requirements in recognition of the expanded coverage, in NFPA 101, to include toilet usability and safety.

### Submitter Information Verification

**Submitter Full Name:** Jake Pauls  
**Organization:** Jake Pauls Consulting Services  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Tue Jun 04 12:39:33 EDT 2024  
**Committee:** SAF-RES

### Committee Statement

**Resolution:** A first revision of the associated PI was not incorporated therefore, the new language does not correspond to the existing language of the requirement.



## Public Input No. 356-NFPA 101-2024 [ Section No. A.24.2.8.1.3 ]

### A.24.2.8.1.3

The *Code* does not require water closet grab bars and stanchions to be installed to improve the usability and safety of water closets. Where provided, water closet grab bars and stanchions might be in close proximity to bathtubs or showers and could be used to comply with the bathtub or shower grab bar requirements. Preferences for two vertical points of control for water closets include one installed on each side of the front of the water closet and within the functional reach of water closet users. With two such points of control on opposite sides of the front of the toilet, it should be acceptable for one to be as much as a few inches behind the front of the water closet if, on the other side, the grab bar or stanchion is the same distance farther forward of the front of the toilet. In other words, the toilet user's body can, quite comfortably, be aligned not strictly with the centerline of the water closet but be as much as a 20-degree angle off this centerline.

In addition to these criteria for grab bars and stanchions serving the toilet user, one of these points of control could be installed in accordance with the vertical points of control requirements for a bathtub or shower. The requirements for grab bars and stanchions for showers and bathtubs were added to the scope of the *Code* in 2018 and 2021-Insights, followed in 2024 with requirements for grab bars or stanchions for water closets. Research-based insights on best practices on their selection can be found in the study by Kennedy et al., "Toilet Grab-Bar Preference and Center of Pressure Deviation During Toilet Transfers in Healthy Seniors, Seniors With Hip Replacements, and Seniors Having Suffered a Stroke."

## Statement of Problem and Substantiation for Public Input

This is simply a general updating of the Annex notes especially in light of Public Input 220 add requirements for water closets to have grab bars or stanchions.

## Submitter Information Verification

**Submitter Full Name:** Jake Pauls  
**Organization:** Jake Pauls Consulting Services  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Tue Jun 04 13:09:25 EDT 2024  
**Committee:** SAF-RES

## Committee Statement

**Resolution:** A first revision of the associated PI was not incorporated therefore, the new language does not correspond to the existing language of the requirement.



## Public Input No. 179-NFPA 101-2024 [ Section No. A.28.3.4.3.2 ]

### A.28.3.4.3.2

The standard audible alarm signal used in all fire alarm horns and integral sounders of smoke detectors for the past 30 years utilized a typical frequency of approximately 3 KHz. Peer-reviewed research has concluded the waking effectiveness of a 520 Hz low-frequency signal is superior to the standard 3 KHz audible alarm signal for waking high-risk segments of the population such as people over 65, people who are hard of hearing, school-age children, and people who are alcohol-impaired. Therefore, ~~the 520-Hz~~ a low-frequency audible alarm signal is now required in areas intended for sleeping within hotels and dormitories that are required to have a fire alarm system. The following product solutions are currently available in the market to produce ~~the 520-Hz~~ a low-frequency audible alarm signal in sleeping rooms:

- (1) Smoke detectors with integral sounder bases
- (2) Fire alarm system horns and horn/strobes
- (3) Speakers connected to an in-building fire alarm emergency voice alarm communication (EVAC) system

The peer-reviewed research project — *Optimizing Fire Alarm Notification for High Risk Groups: Waking Effectiveness of Alarms (Auditory, Visual and Tactile) for Adults Who Are Hard of Hearing and Waking Effectiveness of Alarms (Auditory, Visual and Tactile) for the Alcohol Impaired* — was conducted under the auspices of the Fire Protection Research Foundation.

## Statement of Problem and Substantiation for Public Input

This proposal has been generated by the newly-formed Low Frequency Alarm Committee (LFAC) which consists of a broad scope of representatives who are examining more closely the pros and cons of low frequency alarms in all occupancies and their spaces and rooms.

The purpose of this proposal is to act as a starting point and placeholder. The modifier “520-Hz” is proposed for deletion as the tone characteristics are defined in NFPA 72 and is unnecessary here. Additional changes to low frequency alarm terminology may follow. Additional changes are proposed to remove “520-Hz” from all locations of this code (Chapters 28 and 30 and Annex A).

The LFAC does not believe this proposal to be the end-all for this Section as the task group is in the process of reviewing all aspects with the intent to have greater insight and recommendations within the next year.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 174-NFPA 101-2024 [Section No. 9.6.2.10.3]</a>	

## Submitter Information Verification

**Submitter Full Name:** Daniel Buuck  
**Organization:** National Association of Home Builders  
**Affiliation:** Low Frequency Alarm Committee  
**Street Address:**  
**City:**

**State:**

**Zip:**

**Submittal Date:** Thu May 30 16:34:14 EDT 2024

**Committee:** SAF-RES

### **Committee Statement**

**Resolution:** [FR-6663-NFPA 101-2024](#)

**Statement:** The modifier “520-hz” should be deleted as the frequency characteristics are defined in NFPA 72 , UL 217, and UL 464 and is unnecessary in NFPA 101. Removing the “520 Hz” reference allows NFPA 72 to make modifications as technically necessary without impacting the application of NFPA 101.



## Public Input No. 180-NFPA 101-2024 [ Section No. A.28.3.4.6.1 ]

### A.28.3.4.6.1

The standard audible alarm signal used in all smoke alarms for the past 30 years utilized a typical frequency of approximately 3 KHz. Peer-reviewed research has concluded the waking effectiveness of the 520 Hz low-frequency signal is superior to the standard 3 KHz audible alarm signal for waking high-risk segments of the population such as people over 65, people who are hard of hearing, school-age children, and people who are alcohol impaired. Therefore, ~~the 520-Hz~~ a low-frequency audible alarm signal is now required for smoke alarms in areas intended for sleeping within hotels and dormitories that are required to have a fire alarm system. If smoke alarms capable of producing the low-frequency audible alarm signal are not available, smoke detectors arranged to function in the same manner as smoke alarms in accordance with 9.6.2.10.8 would be required. The following product solutions are currently available in the market if the smoke alarm is unable to produce ~~the 520-Hz~~ a low-frequency audible alarm signal in sleeping rooms:

- (1) Smoke detectors with integral sounder bases
- (2) Fire alarm system horns and horn/strobes
- (3) Speakers connected to an in-building fire alarm emergency voice alarm communication (EVAC) system

The peer-reviewed research project — *Optimizing Fire Alarm Notification for High Risk Groups: Waking Effectiveness of Alarms (Auditory, Visual and Tactile) for Adults Who Are Hard of Hearing and Waking Effectiveness of Alarms (Auditory, Visual and Tactile) for the Alcohol Impaired* — was conducted under the auspices of the Fire Protection Research Foundation.

## Statement of Problem and Substantiation for Public Input

This proposal has been generated by the newly-formed Low Frequency Alarm Committee (LFAC) which consists of a broad scope of representatives who are examining more closely the pros and cons of low frequency alarms in all occupancies and their spaces and rooms.

The purpose of this proposal is to act as a starting point and placeholder. The modifier “520-Hz” is proposed for deletion as the tone characteristics are defined in NFPA 72 and is unnecessary here. Additional changes to low frequency alarm terminology may follow. Additional changes are proposed to remove “520-Hz” from all locations of this code (Chapters 28 and 30 and Annex A).

The LFAC does not believe this proposal to be the end-all for this Section as the task group is in the process of reviewing all aspects with the intent to have greater insight and recommendations within the next year.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 174-NFPA 101-2024 [Section No. 9.6.2.10.3]</a>	

## Submitter Information Verification

**Submitter Full Name:** Daniel Buuck  
**Organization:** National Association of Home Builders  
**Affiliation:** Low Frequency Alarm Committee

**Street Address:**

**City:**

**State:**

**Zip:**

**Submittal Date:** Thu May 30 16:36:07 EDT 2024

**Committee:** SAF-RES

### **Committee Statement**

**Resolution:** [FR-6664-NFPA 101-2024](#)

**Statement:** The modifier "520-hz" should be deleted as the frequency characteristics are defined in NFPA 72 , UL 217, and UL 464 and is unnecessary in NFPA 101. Removing the "520 Hz" reference allows NFPA 72 to make modifications as technically necessary without impacting the application of NFPA 101.



## Public Input No. 181-NFPA 101-2024 [ Section No. A.30.3.4.3.2 ]

### A.30.3.4.3.2

The standard audible alarm signal used in all fire alarm horns and integral sounders of smoke detectors for the past 30 years utilized a typical frequency of approximately 3 KHz. Peer-reviewed research has concluded the waking effectiveness of a 520 Hz low-frequency signal is superior to the standard 3 KHz audible alarm signal for waking high-risk segments of the population such as people over 65, people who are hard of hearing, school-age children, and people who are alcohol impaired. Therefore, ~~the 520-Hz a~~ low-frequency audible alarm signal is now required in areas intended for sleeping within apartment buildings that are required to have a fire alarm system. The following product solutions are currently available in the market to produce ~~the 520-Hz a~~ low-frequency audible alarm signal in sleeping rooms:

- (1) Smoke detectors with integral sounder bases
- (2) Fire alarm system horns and horn/strobes
- (3) Speakers connected to an in-building fire alarm emergency voice alarm communication (EVAC) system

The peer-reviewed research project — *Optimizing Fire Alarm Notification for High Risk Groups: Waking Effectiveness of Alarms (Auditory, Visual and Tactile) for Adults Who Are Hard of Hearing and Waking Effectiveness of Alarms (Auditory, Visual and Tactile) for the Alcohol Impaired* — was conducted under the auspices of the Fire Protection Research Foundation.

## Statement of Problem and Substantiation for Public Input

This proposal has been generated by the newly-formed Low Frequency Alarm Committee (LFAC) which consists of a broad scope of representatives who are examining more closely the pros and cons of low frequency alarms in all occupancies and their spaces and rooms.

The purpose of this proposal is to act as a starting point and placeholder. The modifier “520-Hz” is proposed for deletion as the tone characteristics are defined in NFPA 72 and is unnecessary here. Additional changes to low frequency alarm terminology may follow. Additional changes are proposed to remove “520-Hz” from all locations of this code (Chapters 28 and 30 and Annex A).

The LFAC does not believe this proposal to be the end-all for this Section as the task group is in the process of reviewing all aspects with the intent to have greater insight and recommendations within the next year.

## Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<a href="#">Public Input No. 174-NFPA 101-2024 [Section No. 9.6.2.10.3]</a>	

## Submitter Information Verification

**Submitter Full Name:** Daniel Buuck  
**Organization:** National Association of Home Builders  
**Affiliation:** Low Frequency Alarm Committee  
**Street Address:**  
**City:**

**State:**

**Zip:**

**Submittal Date:** Thu May 30 16:37:27 EDT 2024

**Committee:** SAF-RES

### **Committee Statement**

**Resolution:** [FR-6665-NFPA 101-2024](#)

**Statement:** The modifier “520-hz” should be deleted as the frequency characteristics are defined in NFPA 72 , UL 217, and UL 464 and is unnecessary in NFPA 101. Removing the “520 Hz” reference allows NFPA 72 to make modifications as technically necessary without impacting the application of NFPA 101.



## Public Input No. 182-NFPA 101-2024 [ Section No. A.30.3.4.5.1 ]

### A.30.3.4.5.1

The standard audible alarm signal used in all smoke alarms for the past 30 years utilized a typical frequency of approximately 3 KHz. Peer-reviewed research has concluded the waking effectiveness of the 520 Hz low-frequency signal is superior to the standard 3 KHz audible alarm signal for waking high-risk segments of the population such as people over 65, people who are hard of hearing, school-age children, and people who are alcohol impaired. Therefore, ~~the 520-Hz~~ a low-frequency audible alarm signal is now required for smoke alarms in areas intended for sleeping within apartment buildings that are required to have a fire alarm system. If smoke alarms that are capable of producing the low-frequency audible alarm signal are not available, smoke detectors arranged to function in the same manner as smoke alarms in accordance with 9.6.2.10.8 would be required. The following product solutions are currently available in the market if the smoke alarm is unable to produce ~~the 520-Hz~~ a low-frequency audible alarm signal in sleeping rooms:

- (1) Smoke detectors with integral sounder bases
- (2) Fire alarm system horns and horn/strobes
- (3) Speakers connected to an in-building fire alarm emergency voice alarm communication (EVAC) system

The peer-reviewed research project — *Optimizing Fire Alarm Notification for High Risk Groups: Waking Effectiveness of Alarms (Auditory, Visual and Tactile) for Adults Who Are Hard of Hearing and Waking Effectiveness of Alarms (Auditory, Visual and Tactile) for the Alcohol Impaired* — was conducted under the auspices of the Fire Protection Research Foundation.

## Statement of Problem and Substantiation for Public Input

This proposal has been generated by the newly-formed Low Frequency Alarm Committee (LFAC) which consists of a broad scope of representatives who are examining more closely the pros and cons of low frequency alarms in all occupancies and their spaces and rooms.

The purpose of this proposal is to act as a starting point and placeholder. The modifier “520-Hz” is proposed for deletion as the tone characteristics are defined in NFPA 72 and is unnecessary here. Additional changes to low frequency alarm terminology may follow. Additional changes are proposed to remove “520-Hz” from all locations of this code (Chapters 28 and 30 and Annex A).

The LFAC does not believe this proposal to be the end-all for this Section as the task group is in the process of reviewing all aspects with the intent to have greater insight and recommendations within the next year.

## Submitter Information Verification

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**Submittal Date:** Thu May 30 16:38:22 EDT 2024

**Committee:** SAF-RES

### Committee Statement

**Resolution:** [FR-6666-NFPA 101-2024](#)

**Statement:** The modifier “520-hz” should be deleted as the frequency characteristics are defined in NFPA 72 , UL 217, and UL 464 and is unnecessary in NFPA 101. Removing the “520 Hz” reference allows NFPA 72 to make modifications as technically necessary without impacting the application of NFPA 101.