



Public Input No. 137-NFPA 101-2024 [Section No. 3.3.97.4]

3.3.97.4* Interior Wall Finish.

The interior finish of columns, fixed or movable walls including permanent and temporary attached materials , and fixed or movable partitions. (SAF-INT)

Statement of Problem and Substantiation for Public Input

It can be clarified that wayfinding signs, displays, and other materials that are attached to the wall form part of the interior finish to the wall must also be tested to Class A, B, or C.

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Committee: SAF-INT

Committee Statement

Resolution: Unless otherwise exempted by the Code (i.e. percentage of wall surfaces), items that are attached to wall should be treated as part of the surface and should be tested as part of the assembly, not tested independently. If less than 1/8 of an inch, it would not need to be tested if it's attached to a noncombustible substrate. It is unclear if televisions, artwork/frames, or pieces of paper would need to be considered by the submitter's language. A task group has been created to look at all of the allowable percentages of artwork, posters, and other attachments.



Public Input No. 351-NFPA 101-2024 [New Section after 10.2.1]

TITLE OF NEW CONTENT

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Add new section under 10.2.1 10.2.1.6 Automatic Sprinkler Systems

Reductions in interior finish classification requirements shall be in accordance with 10.2.8.

Statement of Problem and Substantiation for Public Input

Reason for change: the automatic sprinkler section within 10.2 can be easily overlooked. In Chapters 12 – 42, minimum interior wall and ceiling finish requirements are provided, with reference to 10.2. The individual chapters explicitly state what interior finish Class is acceptable for use, without providing reference to the automatic sprinkler section of 10.2. Reference to 10.2 is provided in the individual chapters, so it is not necessary to provide specific reference to 10.2.8; however, the automatic sprinkler reduction for interior finish should be more clearly identifiable in Chapter 10 by providing reference to this section at the beginning of 10.2 under general requirements.

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Committee Statement

Resolution: Section 10.2.8 already adequately addresses sprinkler provisions concerning interior finish.



Public Input No. 122-NFPA 101-2024 [Section No. 10.2.1]

10.2.1* General.

10.2.1.1

Classification of interior finish materials shall be in accordance with tests made under conditions simulating actual installations, provided that the authority having jurisdiction is permitted to establish the classification of any material for which classification by a standard test is not available.

10.2.1.2

Fixed or movable walls and partitions, paneling, wall pads, and crash pads applied structurally or for decoration, acoustical correction, surface insulation, or other purposes shall be considered interior finish and shall not be considered decorations or furnishings.

10.2.1.3

Lockers shall be considered interior finish.

10.2.1.4

Washroom water closet partitions shall be considered interior finish.

10.2.1.5 –

Fire-retardant coatings shall be in accordance with 10.2.6.

Statement of Problem and Substantiation for Public Input

See the proposed new section 10.8 which is more explicit.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 123-NFPA 101-2024 [New Section after 10.7.5.2]	
Public Input No. 123-NFPA 101-2024 [New Section after 10.7.5.2]	

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Committee: SAF-INT

Committee Statement

Resolution: [FR-6534-NFPA 101-2024](#)

Statement: This section has been relocated to a new section 10.8.



Public Input No. 213-NFPA 101-2024 [Section No. 10.2.1.4]

10.2.1.4 –

Washroom water closet partitions shall be considered interior finish.

Statement of Problem and Substantiation for Public Input

Section §3.3.97.2 of NFPA 101 defines interior finish as “The exposed surfaces of walls, ceilings, and floors within buildings”. This definition does not represent any washroom water closet partition components, including the divider panel(s), which are neither walls, ceilings, nor floors. Washroom water closet partitions are primarily made from stainless steel, powder coated galvanized, plastic laminate (particleboard with high pressure laminate facing and edging), phenolic, and high-density polyethylene (HDPE). Based on the extensive experience in manufacturing, distributing, and selling washroom water closet partitions, along with National Fire Protection Association (NFPA) Research data related to non-residential structure fires originating in bathrooms, and recently distributed to the NFPA 286 Standards Council Directed Task Group on Bathroom Partitions, a fire scenario where washroom water closet partitions, made from any of the above listed materials was the primary source or contributing fuel source for a fire that was responsible for the loss of life or significant property damage/loss has yet to be identified. The size of a washroom fire with limited combustibles is expected to be much smaller than a fire in a typical room/enclosure that has a significant combustible fuel load. The larger potential fire size in a typical room/enclosure compared to that of a washroom water closet partition fire is the main reason why wall and ceiling materials in typical rooms/enclosures needs to be considered interior finish. This is not the case for free-hanging or standing washroom water closet partitions installed in washrooms with limited combustible fuel loads. Requiring washroom water closet partitions to be considered interior finish and to therefore be fire-rated according to interior finish requirements poses an undue burden on the washroom water closet partition industry and the consumers, and provides no added benefit, since a washroom/bathroom fire problem does not exist. Requiring washroom water closet partitions to be fire-rated such that it can be considered interior finish requires manufacturers to use formulations with fire-retardant additives which increases the weight and the cost of the washroom water closet partitions. The use of additional additives and the increased weight of the partitions now means that the manufacturer must consider all the additional expenses that will be incurred throughout the entire product process including, but not limited to: increased freight costs; the repairs and maintenance of the manufacturing equipment in order to produce products with fire-retardant additives; ensuring employee safety when handling the heavier panels; revisions to packaging to manage the additional weight and ensure quality of product; increase in the cost of other raw materials to ensure the quality of the product; revisions to hardware components necessary to install the partitions to ensure product life cycle performance due to the additional weight; the cost of the product outside of the manufacturing facility such as freight costs, additional labor costs required for installation of heavier components to ensure employee safety; and the reduction of product life expectancy and therefore increased replacement costs due to the introduction of additives.

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Committee: SAF-INT

Committee Statement

Resolution: The committee considered the history of the washroom water closet partitions in both NFPA 101 and NFPA 286. Staff provided an update related to the recent actions on the NFPA 286 requirements and the task group work relating to the mounting requirements. Data from NFPA's research report on "Non-Residential Structure Fires Originating in a Bathroom 2017-2021 Annual Averages" was presented showing the number of fires originating in bathrooms. The designs of bathroom partitions are changing as they can extend from floor to ceiling. These partitions are configured similarly to an interior wall and should continue to be regulated as an interior finish. The flame spread and fire behavior along the vertical surface of these partitions is similar when compared to other surfaces that are similarly mounted, installed or constructed within a building. Similar vertical partitions (e.g. lockers, cubicle partitions) are also regulated by the Code.



Public Input No. 244-NFPA 101-2024 [Section No. 10.2.1.4]

10.2.1.4 –

Washroom water closet partitions shall be considered interior finish.

Statement of Problem and Substantiation for Public Input

Problem:

Washroom water closet partitions (i.e. toilet partitions) do not represent interior finish materials as defined by the NFPA and do not represent a significant fire hazard. Section 10.2 of the 2024 edition of NFPA 101 currently requires manufacturers of certain washroom water closet partitions, including high-density polyethylene (HDPE) partitions, to pass the NFPA 286 Room Corner Test method so that they can be classified as interior finish materials. Section 10.2.4.9.1 of NFPA 101 states that “Solid thermoplastics including, but not limited to, polypropylene, high-density polyethylene (HDPE), solid polycarbonate, solid polystyrene, and solid acrylic materials that melt and drip when exposed to flame shall not be permitted as interior wall or ceiling finish unless the material complies with the requirements of 10.2.3.1”. Section 10.2.3.1 covers “Interior Wall and Ceiling Finish Materials Tested in Accordance with NFPA 286.” As such, HDPE washroom toilet partitions, in addition to other select materials, must be tested in accordance with NFPA 286 as opposed to ASTM E84 like almost all other interior finish materials.

To meet the criteria of NFPA 286, manufacturers of HDPE washroom water closet partitions have to formulate their products with fire-retardant additives. This creates a significant financial burden on the manufacturers of these products. The NFPA 286 test method is more expensive to run compared to other test methods such as ASTM E84, and the addition of fire-retardant additives significantly increases the cost to manufacture the product. The addition of fire-retardant additives also significantly increases the overall weight of the product, negatively impacting shipping costs, mounting hardware costs, labor to install the product, etc. Classifying washroom water closet partitions as interior finish creates a significant financial burden for manufacturers of HDPE washroom water closet partitions. Furthermore, other non-HDPE washroom water closet partitions have been demonstrated to be non-compliant with the NFPA 286 test method yet are allowed in accordance with NFPA 101 (as well as other NFPA and ICC standards) based on ASTM E84 test results.

The NFPA 101 requirement creates an unfair, baseless and anti-competitive advantage for other manufacturers of similarly combustible (and more combustible) washroom water closet partitions, when there is no technical basis justifying these additional burdens, much less only applying this significant burden to polypropylene, high-density polyethylene (HDPE), solid polycarbonate, solid polystyrene, and solid acrylic partitions.

Reasoning:

The basic definition of interior finish materials provided in NFPA 101 would not classify washroom water closet partitions as interior finish. Chapter 3 of the 2024 edition of NFPA 101 defines finish materials as:

3.3.97 Finish.

3.3.97.1 Interior Ceiling Finish. The interior finish of ceilings.

3.3.97.2* Interior Finish. The exposed surfaces of walls, ceilings, and floors within buildings.

3.3.97.3* Interior Floor Finish. The interior finish of floors, ramps, stair treads and risers, and other walking surfaces.

3.3.97.4* Interior Wall Finish. The interior finish of columns, fixed or movable walls, and fixed or movable partitions.

NFPA 1 and NFPA 5000 have identical definitions.

Washroom water closet partitions are partial barriers between portions of a washroom (i.e. bathroom) that are not adhered to or attached to the exposed surfaces of the room walls. They do not represent the exposed surfaces of walls as defined. They also do not get installed in a corner configuration with two adjacent perpendicular walls where a potential fuel source is located in the corner as tested in accordance with NFPA 286. They also do not typically extend from the floor to the ceiling like typical interior wall finish materials. Therefore, as defined by NFPA 101 (as well as NFPA 1 and NFPA 5000), washroom water closet partitions would not be considered a finish material and would not meet the definition of an interior wall finish, as they do not represent the exposed surfaces of walls or the interior finish of fixed walls.

Section 10.2 of NFPA 101 covers "Interior Finish". Washroom water closet partitions become "classified" as interior wall finish materials by the criteria provided Section 10.2.1.4 which states:

10.2.1.4 Washroom water closet partitions shall be considered interior finish.

Note that the language in Section 10.2.1.4 was moved from the non-mandatory annex of the 2015 edition of NFPA 101 (Section A.10.2.1.5) to the required language of the 2018 edition. However, I am not aware of any research, engineering analysis or test studies that have been performed and presented to the NFPA technical committee for NFPA 101, 1 or 5000 to justify classifying washroom water closet partitions as an interior finish as required in Section 10.2.1.4. Note that there also does not appear to be any information that justified the annex material from the previous editions of NFPA 101 that "intended to include" washroom water closet materials as interior finish. As annex material is nonmandatory, the "interior finish" classification for washroom water closet partitions did not become a requirement until the 2018 edition on NFPA 101.

The addition of the classification of washroom water closet partitions as interior finish in the 2018 edition of NFPA 101 does not appear to have been in accordance with the NFPA code development process. For example, there is no information to support that this change to the 2018 edition of NFPA 101 was developed in accordance with the Regulations Governing the Development of NFPA Standards. These NFPA regulations state that:

3.3.6 NFPA Standards Content. Each technical committee shall, as far as practicable, prepare NFPA standards in terms of required performance, avoiding specifications of materials, devices, or methods so phrased as to preclude obtaining the desired results by other means. It shall also base its recommendations on one or more of the following factors: fire experience, research data, engineering fundamentals, or other such information as may be available.

There is no information available to support that the addition of Section 10.2.1.4 to the 2018 edition of NFPA 101 was based on fire experience, research data, engineering fundamentals or other applicable information. Therefore, the addition of Section 10.2.1.4 to NFPA 101 should not have been approved at that time, and this public input attempts to rectify that situation until such time that the required information be presented to justify the change in accordance with the Regulations Governing the Development of NFPA Standards.

As required by Section 10.2.4.9.1 of NFPA 101, HDPE, solid polycarbonate, solid polystyrene and solid acrylic interior finish materials that melt and drip when exposed to flame must be tested in accordance with NFPA 286. However, washroom water closet partitions are made from a variety of materials including, but not limited to, metal, HDPE, phenolics and laminates, including plastic laminates. The current NFPA 101 language requires HDPE washroom water closet partitions (and the other select materials) to be tested in accordance with NFPA 286. However, other washroom water closet partitions, such as phenolics, plastic laminates and other materials are not required to be tested to the same test criteria. It has been demonstrated through NFPA 286 testing that other washroom water closet partitions are non-compliant with the NFPA 286 test method yet are allowed in accordance with NFPA 101 (as well as other NFPA and ICC standards) based on ASTM E84 test results. This represents an unfair and anti-competitive or discriminatory testing criteria being applied to a subset of washroom water closet partition materials that has not been technically justified and is not being applied to other similar products that could represent a similar or more hazardous fire risk. There is no rationale to believe that this is reasonable without comprehensive test data for all types of combustible washroom water closet partitions that can be evaluated by the technical committee.

I am not aware of any fire experience, research data, engineering fundamentals or other applicable information that has been presented to the NFPA technical committee for NFPA 101 that would indicate that HDPE washroom water closet partitions present more of a fire hazard than other combustible washroom water closet partitions, including phenolics, plastic laminates and other combustible materials. Furthermore, I am not aware of any fire experience, research data, engineering fundamentals or other applicable information that has been presented to the NFPA technical committee for NFPA 101 that would indicate that phenolics and plastic laminate washroom water closet partitions that currently meet the test requirements of ASTM E84 (per Section 10.2.3.3) can meet the requirements of NFPA 286 as required for HDPE washroom water closet partitions. If the true purpose of this provision is to address fire hazards associated with washroom water closet partitions, then all washroom water closet partitions should be subjected to the same test requirements. They are not. The requirements in the 2024 edition of NFPA 101 instead discriminate based on material type, despite other washroom water closet partitions made of different material types not meeting the requirements of NFPA 286.

In addition to the lack of technical justification for classifying washroom water closet partitions as interior finish, and indiscriminately requiring HDPE washroom water closet partitions to be tested in accordance with NFPA 286 (while other washroom water closet partitions are not), washroom water closet partitions are not similar to typical interior wall finish materials.

Washroom water closet partitions are not directly adhered to the walls of the room as are typical interior finishes. Washroom water closet partitions are also installed perpendicular to walls, and therefore are not subject to the same corner-exposure as other interior finishes that are required to be tested in accordance with NFPA 286. Corner configurations when testing traditional interior wall finish materials are known to produce taller flames due to reduced air entrainment into the corner as compared to a fire burning in the open or along a single wall. This is not the case with washroom water closet room partitions as they are not installed in corner configurations.

Furthermore, there is currently no guidance within the current edition of NFPA 286 to address the testing of washroom water closet partitions. Based on the current NFPA 286 testing requirements, washroom water closet partitions would have to be attached directly to three walls of the 8' x 12' x 8' high test room with a 40 kW/160 kW gas burner located in the corner (i.e., the room corner test). This in no way represents the typical installation of washroom water closet partitions. Washroom water closet partitions are typically installed (1) perpendicular to walls and not in a corner configuration as in NFPA 286, (2) not installed directly onto on the exposed surfaces of the room, (3) where they do not extend from floor to ceiling as they are typically elevated from the floor and do not extend to the ceiling and (4) are not potentially exposed to a fire source as simulated by the burner in the NFPA 286 test method. This typical installation is in no way consistent with the test configuration provided in NFPA 286. In summary, NFPA 286 is not the appropriate standard to evaluate the fire hazard of washroom water closet partitions.

Until the NFPA Fire Test Committee (which oversees NFPA 286) can develop a new and appropriate test method for washroom water closet partitions or develop a reasonable and appropriate sample mounting method for washroom water closet partitions for NFPA 286 that accurately represents end use conditions of these partitions, washroom water closet partitions (including HDPE partitions) should not be subject to testing in accordance with NFPA 286.

Furthermore, I am not aware of any data, including NFPA data, fire reporting statistics or independent research studies that have been submitted to the NFPA technical committee for NFPA 101 that indicates that (1) fires in washrooms are prevalent and represent a significant or actual fire hazard, (2) that washroom water closet partitions represent a significant fire hazard, (3) that typical washrooms have fuel loads that would represent a significant fire hazard, (4) that a fire similar to that used in the NFPA 286 test (a gas burner in the corner for 15 minutes simulating a trashcan fire) represents a reasonable fire in a washroom, and (5) that occupancy within washrooms is frequent enough to represent a significant fire hazard.

Per Section 10.2.3.1.2, successfully testing washroom water closet partitions in accordance with NFPA 286 is equivalent to a Class A rating when tested in accordance with ASTM E 84 (flame spread index of 0 to 25 and smoke developed index 0 to 450). Codes such as the 2024 edition of the International Building Code (IBC) only require Class A interior finish materials in interior exit stairways and ramps and exit passageways for some occupancies and in corridors and enclosures for exit access stairways

and ramps for even fewer occupancies (IBC-2024 Table 803.13). For almost all other spaces, Class C interior finish materials are allowed. Note that Class C interior finish materials have a higher flame spread index (76 to 200) compared to Class A materials (0 to 25). As washroom water closet partitions would never be installed in an interior exit stairway, exit passageway, corridor for exit access, etc., requiring the equivalent of a Class A rating is overly prescriptive, unnecessary and inconsistent with the requirements for other interior finish materials. The flammability requirement for washroom water closet partitions, which is clearly a product used only for washrooms (i.e. bathrooms), should not be expected to be more stringent than other interior finish materials that are used as part of exists.

The current language within the 2024 edition of NFPA 101 appears to apply testing requirements to HDPE washroom water closet partitions (and other materials) without considering (1) whether washroom water closet partitions actually represent interior finish, or (2) whether other washroom water closet partitions, such as phenolics, plastic laminates and other combustible materials represent a similar or increased fire hazard compared to HDPE partitions. Without sufficient fire experience, research data, engineering fundamentals or other applicable information in accordance with Section 3.3.6 of the Regulations Governing the Development of NFPA Standards, these requirements are unfounded. If the NFPA truly considers washroom water closet partitions to be a unique fire hazard, then ALL combustible washroom water closet partitions should be held to the same flammability requirements, not select materials. As such, the current requirements included in Section 10.2.1.4 of NFPA 101 should be removed.

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Committee Statement

Resolution: The committee considered the history of the washroom water closet partitions in both NFPA 101 and NFPA 286. Staff provided an update related to the recent actions on the NFPA 286 requirements and the task group work relating to the mounting requirements. Data from NFPA's research report on "Non-Residential Structure Fires Originating in a Bathroom 2017-2021 Annual Averages" was presented showing the number of fires originating in bathrooms. The designs of bathroom partitions are changing as they can extend from floor to ceiling. These partitions are configured similarly to an interior wall and should continue to be regulated as an interior finish. The flame spread and fire behavior along the vertical surface of these partitions is similar when compared to other surfaces that are similarly mounted, installed or constructed within a building. Similar vertical partitions (e.g. lockers, cubicle partitions) are also regulated by the Code.



Public Input No. 124-NFPA 101-2024 [Section No. 10.2.2]

10.2.2* Use of Interior Finishes.

10.2.2.1

Requirements for interior wall and ceiling finish shall apply as follows:

- (1) Where specified elsewhere in this *Code* for specific occupancies (see *Chapter 7 and Chapters 11 through 43*)
- (2) As specified in 10.2.3 through 10.2.6.

10.2.2. 2

Table 10.2.2 provides a compilation of the interior finish requirements of 7.1.4 and the occupancy chapters (Chapters 12 through 42) of this Code.

Table 10.2.2 Interior Finish Classification Limitations

Occupancy	Exits †	Access to Exits	Other Spaces
<u>Assembly</u>			
>300 occupant load	A	A or B	A or B
≤300 occupant load	A	A or B	A, B, or C
<u>Educational</u>	A	A or B; C on low partitions ‡	A or B; C on low partitions ‡
<u>Day-care centers</u>	A	A I or II	A or B
<u>Group day-care homes</u>	A or B	A or B	A, B, or C
<u>Family day-care homes</u>	A or B	A, B, or C	A, B, or C
<u>Health care (sprinklers mandatory)</u>	A or B	A or B; C on lower portion of corridor wall †	A or B; C in small individual rooms ‡
<u>Ambulatory health care</u>	A or B	A or B I or II	A, B, or C
<u>Detention and correctional (sprinklers mandatory)</u>	A or B I	A or B I	A, B, or C
<u>Hotels and dormitories</u>	A	A or B I or II	A, B, or C
<u>Apartment buildings</u>	A	A or B I or II ‡	A, B, or C
<u>One- and two-family dwellings and lodging or rooming houses</u>	A, B, or C	A, B, or C	A, B, or C
<u>Residential board and care (See Chapter 26.)</u>			
<u>Mercantile</u>	A or B	A or B	A or B
<u>Business</u>	A or B	A or B	A, B, or C
<u>Industrial</u>	A or B	A, B, or C	A, B, or C
<u>Storage</u>	A or B	A, B, or C	A, B, or C

†Paragraph 11.1.4.2 requires Class I or Class II interior floor finish in exits.

‡See corresponding chapters for details.

Notes:

(1) Class A interior wall and ceiling finish — flame spread index 0–25, (new) smoke developed index 0–450.

(2) Class B interior wall and ceiling finish — flame spread index 26–75, (new) smoke developed index 0–450.(3)

(3) Class C interior wall and ceiling finish — flame spread index 76–200, (new) smoke developed index 0–450.

(4) Class I interior floor finish — critical radiant flux not less than 0.45 W/cm^2 .

(5) Class II interior floor finish — critical radiant flux not less than 0.22 W/cm^2 , but less than 0.45 W/cm^2 .

(6) Where a complete standard system of automatic sprinklers is installed, interior wall and

ceiling finish meeting the requirements of at least Class C is permitted to be used in any location where Class B is required, and interior wall and ceiling finish meeting the requirements of Class B is permitted to be used in any location where Class A is required. Similarly, Class II interior floor finish is permitted to be used in any location where Class I is required, and no critical radiant classification is required where Class II is required. These provisions do not apply to new health care facilities.

(7) Exposed portions of structural members complying with the requirements for heavy timber construction are permitted.

10.2.2.3 * _ _

Interior floor finish shall comply with 10.2.7 under any of the following conditions:

- (1) Where floor finish requirements are specified elsewhere in the *Code*
- (2) Where the fire performance of the floor finish cannot be demonstrated to be equivalent to floor finishes with a critical radiant flux of at least 0.1 W/cm^2

Statement of Problem and Substantiation for Public Input

It makes no sense for table A.10.2.2 to be in the annex. It includes the actual requirements in the code. An associated PI proposes deleting the annex table.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 125-NFPA 101-2024 [Section No. A.10.2.2]	
Public Input No. 125-NFPA 101-2024 [Section No. A.10.2.2]	

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Committee: SAF-INT

Committee Statement

Resolution: [FR-6667-NFPA 101-2024](#)

Statement: This table is a helpful resource for users of the Code, who may only go to Chapter 10 to look for interior finish requirements.



Public Input No. 215-NFPA 101-2024 [Section No. 10.2.3]

10.2.3* Interior Wall or Ceiling Finish Testing and Classification.

Where interior wall or ceiling finish is required elsewhere in this *Code* to be classified for fire performance and smoke development, it shall be classified in accordance with 10.2.3.1 or 10.2.3.3, ~~except as indicated in 10.2.4.~~

~~10.2.3.1 – Interior Wall and Ceiling Finish Materials Tested in Accordance with NFPA 286.~~

~~10.2.3.1.1 –~~

~~Interior wall and ceiling finish materials shall be classified in accordance with NFPA 286 and comply with 10.2.3.2.~~

~~10.2.3.1.2 *~~

~~Materials tested in accordance with 10.2.3.1.1 and complying with 10.2.3.2 shall also be considered to comply with the requirements of a Class A in accordance with 10.2.3.3.~~

~~10.2.3.2 – Acceptance Criteria for NFPA 286.~~

The interior finish shall comply with the following:

- ~~(1) During the 40 kW exposure, flames shall not spread to the ceiling.~~
- ~~(2) The flame shall not spread to the outer extremity of the sample on any wall or ceiling.~~
- ~~(3) Flashover, as described in NFPA 286, shall not occur.~~
- ~~(4) The peak heat release rate throughout the test shall not exceed 800 kW.~~
- ~~(5) For new installations, the total smoke released throughout the test shall not exceed 4000 m².~~

10.2.3.3 * – Interior Wall and Ceiling Finish Materials Tested in Accordance with ASTM E84 or UL 723.

Interior wall and ceiling finish materials shall be classified in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, or UL 723, *Test for Surface Burning Characteristics of Building Materials*, ~~except as indicated in 10.2.3.4 and 10.2.3.5~~, and shall be grouped in the following classes in accordance with their flame spread and smoke developed indexes:

- (1) Class A: Flame spread index 0–25; smoke developed index 0–450.
- (2) Class B: Flame spread index 26–75; smoke developed index 0–450.
- (3) Class C: Flame spread index 76–200; smoke developed index 0–450.

10.2.3.3 1.1

Existing interior finish shall be exempt from the smoke developed index criteria of 10.2.3.3 1.

10.2.3.3 1.2

The classification of interior finish specified in 10.2.3.3 shall 1 shall be that of the basic material used by itself or in combination with other materials.

10.2.3.3 1.3

Wherever the use of Class C interior wall and ceiling finish is required, Class A or Class B shall be permitted, and where Class B interior wall and ceiling finish is required, Class A shall be permitted.

10.2.3.4 –

~~Materials complying with the requirements of 10.2.3.1 shall not be required to be tested in accordance with 10.2.3.3.~~

10.2.3.5 –

~~Materials described in 10.2.4 shall be tested as described in the corresponding sections.~~

Statement of Problem and Substantiation for Public Input

No quantifiable evidence indicating that NFPA 286 should be used as the default method for testing interior finish rather than the previous default test method, ASTM E84 has been provided. In previous editions of NFPA 101, NFPA 286 was only permitted to be used to test materials that were rated as Class A materials according to ASTM E84 but is currently presented as the default method used to classify the fire performance of interior finish. The technical committee accepted this change based on a public recommendation submitted during the 2018 revision cycle requiring NFPA 286 to be listed as the default testing method for interior finish but the public recommendation had no scientific merit and no quantifiable data was presented to the committee to substantiate this change. This section was not developed according to the principles listed in section §3.3.6 (NFPA Standards Content) of the Regulations Governing the Development of NFPA Standards which calls for fire experience, research data, engineering fundamentals, and other such information as basis for technical committee recommendations.

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Committee Statement

Resolution: Removal of NFPA 286 would have a major impact on a number of interior finish materials that have been tested to NFPA 286 and demonstrated compliance with the Code over the last 20+ years. Some materials cannot be appropriately tested by ASTM E84 and therefore NFPA 286 is needed. Any materials can be tested per NFPA 286 but ASTM E84 is more limited- this is why NFPA 286 is listed first in the chapter. In 2018, the order of the listed test methods was changed, but the requirements remained the same. NFPA 286 has been an option in the Code for over 20 years.



Public Input No. 90-NFPA 101-2024 [Section No. 10.2.3.1.2]

10.2.3.1.2*

Materials tested in accordance with 10.2.3.1.1 and complying with 10.2.3.2 shall also be considered to comply with the requirements of a Class A, Class B, or Class C, in accordance with 10.2.3.3.

Statement of Problem and Substantiation for Public Input

I am frequently asked if something tested and complying with the requirements of NFPA 286 can only be used when the requirement is for an ASTM E84 Class A. Clearly Class B or Class C is also covered but this would make it explicit.

Submitter Information Verification

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Organization: GBH International

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Submittal Date: Wed May 08 20:11:26 EDT 2024

Committee: SAF-INT

Committee Statement

Resolution: [FR-6525-NFPA 101-2024](#)

Statement: NFPA 286 compliant materials also satisfy the requirements for Class B, or Class C.



Public Input No. 214-NFPA 101-2024 [Section No. 10.2.4.9]

10.2.4.9 – Solid Thermoplastics.

10.2.4.9.1 –

Solid thermoplastics including, but not limited to, polypropylene, high-density polyethylene (HDPE), solid polycarbonate, solid polystyrene, and solid acrylic materials that melt and drip when exposed to flame shall not be permitted as interior wall or ceiling finish unless the material complies with the requirements of 10.2.3.1.

10.2.4.9.2 –

The tests shall be performed on a finished assembly and on the maximum thickness intended for use.

Statement of Problem and Substantiation for Public Input

For solid thermoplastics, such as HDPE, to pass the NFPA 286 room corner test (§10.2.3.1 of NFPA 101), manufacturers will have to consider many reformulations, which in turn will increase the cost of this product with no historical fire loss data to justify these increased costs. Each reformulation subjects the manufacturer to increase the overall cost of the product to the consumer. Additional costs come from many different aspects of the product development life cycle including additives to improve the overall performance of the product due to these testing parameters that significantly increases the cost of the product or selecting a different additive that does not increase the cost but is a known carcinogen. In 2018, the NFPA 101 Interior Finish and Contents technical committee proposed that all solid thermoplastics known to melt and drip shall be tested according to NFPA 286 if being used as interior finish. The proposed change had no scientific merit as no quantifiable substantiations or data to support this change was provided. This section was not developed in accordance with the principles outlined in section §3.3.6 (NFPA Standards Content) of the Regulations Governing the Development of NFPA Standards which calls for fire experience, research data, engineering fundamentals, and other such information as basis for technical committee recommendations.

Submitter Information Verification

Submitter Full Name: Richard Long
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Street Address:
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Submittal Date: Sun Jun 02 14:18:07 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: It has been demonstrated by abundant scientific evidence available in multiple publications (for example NIST publication "Aspects of Thermal Behavior of Thermoplastic Materials" Technical Note 1493 published Jan 1, 2008) that many solid thermoplastics melt and drip when flames are applied and are therefore challenged when tested to ASTM E84. The requirements related to solid thermoplastics were first brought to the committee in the 2009 ROP and published in the 2012 edition. Products that can melt or drip during the ASTM E84 test may burn on the floor of the tunnel. This causes

challenges for interpreting results when there is burning occurring on the ceiling and the floor at the same time. Changes to ASTM E84's scope and definitions are coming to address products that may melt or drip by providing structural support.



Public Input No. 126-NFPA 101-2024 [Section No. 10.2.4.16]

10.2.4.16 – Decorations and Furnishings.

Decorations and furnishings that do not meet the definition of interior finish, as defined in 3.3.97.2 , shall be regulated by the provisions of Section 10.3 .

Statement of Problem and Substantiation for Public Input

This section should be moved to section 10.3 and be part of a revision of 10.3.1 to include all decorations (10.2.4.16, 10.3.1, 10.3.4 and 10.3.9), with the associated annex notes.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	
Public Input No. 128-NFPA 101-2024 [Section No. 10.3.4]	
Public Input No. 129-NFPA 101-2024 [Section No. 10.3.9]	
Public Input No. 130-NFPA 101-2024 [Section No. A.10.3.1]	
Public Input No. 131-NFPA 101-2024 [Section No. A.10.3.4]	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Thu May 23 20:00:01 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: [FR-6542-NFPA 101-2024](#)

Statement: This is a reorganization of section 10.3 to group all of the decorations together. The more common, larger furnishings were moved to the beginning (mattresses, furniture) of the section. No technical changes were intended by the section. A task group has been developed to take a careful look at the organization of this section for the Second Draft meeting.



Public Input No. 354-NFPA 101-2024 [New Section after 10.2.5]

10.2.5.4 Permanently affixed artwork, displays, and signage.

10.2.5.4.1

Permanently affixed artwork, displays, and signage attached directly to the wall shall not exceed 10 percent of the aggregate wall area to which they are applied.

Statement of Problem and Substantiation for Public Input

Reason for change: 10.2.5.1 requires artwork and similar displays not addressed in 10.2.5.2 and 10.2.5.3 (bulletin boards and posters) to be a minimum of Class C. This is not a reasonable standard to be applied to unique displays, such as artwork, that cannot be tested in accordance with the applicable standards. If other materials in the code (such as light-transmitting plastics) are permitted to be used in quantities not exceeding 10 percent, the same base requirement should be applied to artwork and other unique displays.

Submitter Information Verification

Submitter Full Name: Courtney Myers
Organization: Jensen Hughes
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State:
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Submittal Date: Tue Jun 04 12:03:55 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: The wall area of 10% conflicts with the 20% allowed for bulletin boards, paper, and posters. A task group has been created to review the requirements related to this topic, including artwork, displays and signage and the correct percentages. The task group also needs to review how this might impact other occupancies including art galleries and museums.



Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]

A large, empty rectangular box with a thin border, intended for public input or comments.

10.3.1* – Draperies, Curtains, and Other Hanging or Suspended Furnishings and Decorations.

10.3.1 General

Decorations and furnishings that do not meet the definition of interior finish, as defined in 3.3.97.2, shall be regulated by the provisions of this Section.

10.3.1.1* Explosive or Highly Flammable Furnishings or Decorations.

Furnishings or decorations of an explosive or highly flammable character shall not be used.

10.3.1.2* Curtains and Hanging Decorations

Where required by the applicable provisions of this Code, draperies, curtains, and other hanging or suspended furnishings and decorations shall meet the flame propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of NFPA 701.

10.3.1.3 Combustible Decorative Vegetation.

10.3.1.3.1 Flammability of Combustible Artificial Decorative Vegetation.

Combustible artificial decorative vegetation shall meet one of the following:

(1) The flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701

(2) A maximum heat release rate of 100 kW when tested to NFPA 289, using the 20 kW ignition source

10.3.1.3.2 Fire-Retardant Treatments for Natural Cut Christmas Trees.

Where fire-retardant treatments are applied to natural cut Christmas trees, the fire-retardant treatment shall comply with both Test Method 1 and Test Method 2 of ASTM E3082, *Standard Test Methods for Determining the Effectiveness of Fire Retardant Treatments for Natural Christmas Trees*.

10.3.1.3.3 Electrical Equipment.

10.3.1.3.3.1 Electrical wiring and listed luminaires used on combustible artificial decorative vegetation shall be listed for that application.

10.3.1.3.3.2 The use of electrical wiring and of luminaires constructed entirely of metal shall not be permitted on combustible artificial decorative vegetation.

10.3.1.3.4 Open Flames.

Candles and open flames shall not be used on or near combustible artificial decorative vegetation.

A.10.3.1.1 Natural cut Christmas trees that are not effectively treated to improve fire performance, ordinary crepe paper decorations, and pyroxylin plastic decorations might be classified as highly flammable. See 10.3.1.3 for requirements for combustible artificial decorative vegetation. See NFPA 1, Section 10.13, for provisions for natural cut Christmas trees.

A.10.3.1.2 Testing per NFPA 701 applies to textiles and films used in a hanging configuration. If the textiles are to be applied to surfaces of buildings or backing materials as interior finishes for use in buildings, they should be treated as interior wall and ceiling finishes in accordance with Section 10.2 of this Code, and they should then be tested for flame spread index and smoke developed index values in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, or UL 723, *Test for Surface Burning Characteristics of Building Materials*, or for flame spread and flashover in accordance with NFPA 265. Films and other materials used as interior finish applied to surfaces of buildings should be tested for flame spread index and smoke developed index values in accordance with ASTM E84 or UL 723 or for heat and smoke release and flashover in accordance with NFPA 286. The test results from NFPA 701 are suitable for classification purposes but should not be used as input into fire models, because they are not generated in units suitable for engineering calculations.

Statement of Problem and Substantiation for Public Input

This PI simply reorganizes all the sections on decorations placing them together in the same section, in a logical order. Associated PIs delete sections 10.3.4 and 10.3.9 and the annex notes in A.10.3.1 and A.10.3.4 and moves them to new locations.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 126-NFPA 101-2024 [Section No. 10.2.4.16]	
Public Input No. 128-NFPA 101-2024 [Section No. 10.3.4]	
Public Input No. 129-NFPA 101-2024 [Section No. 10.3.9]	
Public Input No. 130-NFPA 101-2024 [Section No. A.10.3.1]	
Public Input No. 131-NFPA 101-2024 [Section No. A.10.3.4]	
Public Input No. 128-NFPA 101-2024 [Section No. 10.3.4]	
Public Input No. 129-NFPA 101-2024 [Section No. 10.3.9]	
Public Input No. 130-NFPA 101-2024 [Section No. A.10.3.1]	
Public Input No. 131-NFPA 101-2024 [Section No. A.10.3.4]	

Submitter Information Verification

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Submittal Date: Thu May 23 20:04:33 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: [FR-6542-NFPA 101-2024](#)

Statement: This is a reorganization of section 10.3 to group all of the decorations together. The more common, larger furnishings were moved to the beginning (mattresses, furniture) of the section. No technical changes were intended by the section. A task group has been developed to take a careful look at the organization of this section for the Second Draft meeting.



Public Input No. 128-NFPA 101-2024 [Section No. 10.3.4]

~~10.3.4 * – Explosive or Highly Flammable Furnishings or Decorations.
Furnishings or decorations of an explosive or highly flammable character shall not be used.~~

Statement of Problem and Substantiation for Public Input

this section is being moved by another PI.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	
Public Input No. 126-NFPA 101-2024 [Section No. 10.2.4.16]	
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	
Public Input No. 129-NFPA 101-2024 [Section No. 10.3.9]	
Public Input No. 130-NFPA 101-2024 [Section No. A.10.3.1]	
Public Input No. 131-NFPA 101-2024 [Section No. A.10.3.4]	

Submitter Information Verification

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Submittal Date: Thu May 23 21:07:09 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: [FR-6542-NFPA 101-2024](#)

Statement: This is a reorganization of section 10.3 to group all of the decorations together. The more common, larger furnishings were moved to the beginning (mattresses, furniture) of the section. No technical changes were intended by the section. A task group has been developed to take a careful look at the organization of this section for the Second Draft meeting.



Public Input No. 129-NFPA 101-2024 [Section No. 10.3.9]

~~10.3.9 – Combustible Decorative Vegetation.~~

~~10.3.9.1 – Flammability of Combustible Artificial Decorative Vegetation.~~

~~Combustible artificial decorative vegetation shall meet one of the following:~~

- ~~(1) The flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701~~
- ~~(2) A maximum heat release rate of 100 kW when tested to NFPA 289, using the 20 kW ignition source~~

~~10.3.9.2 – Fire Retardant Treatments for Natural Cut Christmas Trees.~~

~~Where fire-retardant treatments are applied to natural cut Christmas trees, the fire-retardant treatment shall comply with both Test Method 1 and Test Method 2 of ASTM E3082, *Standard Test Methods for Determining the Effectiveness of Fire Retardant Treatments for Natural Christmas Trees*.~~

~~10.3.9.3 – Electrical Equipment.~~

~~10.3.9.3.1 –~~

~~Electrical wiring and listed luminaires used on combustible artificial decorative vegetation shall be listed for that application.~~

~~10.3.9.3.2 –~~

~~The use of electrical wiring and of luminaires constructed entirely of metal shall not be permitted on combustible artificial decorative vegetation.~~

~~10.3.9.4 – Open Flames.~~

~~Candles and open flames shall not be used on or near combustible artificial decorative vegetation.~~

Statement of Problem and Substantiation for Public Input

This section is being moved by another PI.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 126-NFPA 101-2024 [Section No. 10.2.4.16]	
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	
Public Input No. 128-NFPA 101-2024 [Section No. 10.3.4]	
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	
Public Input No. 130-NFPA 101-2024 [Section No. A.10.3.1]	
Public Input No. 131-NFPA 101-2024 [Section No. A.10.3.4]	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler

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Submittal Date: Thu May 23 21:08:18 EDT 2024

Committee: SAF-INT

Committee Statement

Resolution: [FR-6542-NFPA 101-2024](#)

Statement: This is a reorganization of section 10.3 to group all of the decorations together. The more common, larger furnishings were moved to the beginning (mattresses, furniture) of the section. No technical changes were intended by the section. A task group has been developed to take a careful look at the organization of this section for the Second Draft meeting.



Public Input No. 293-NFPA 101-2024 [Section No. 10.6]

~~10.6 – Inflatable Amusement Devices.~~

~~10.6.1 – General.~~

~~Inflatable amusement devices installed in the interior or exterior of buildings or structures other than one- or two-family dwellings shall comply with Section 10.6 .~~

~~10.6.2 – Construction.~~

~~Inflatable amusement devices shall be constructed in accordance with the manufacturer's instructions and the requirements of ASTM F2374, *Standard Practice for Design, Manufacture, Operation, and Maintenance of Inflatable Amusement Devices* .~~

~~10.6.3 – Materials of Construction.~~

~~The inflatable amusement devices shall be constructed of noncombustible materials or of materials meeting the flame propagation criteria of Test Method 2 of NFPA 701.~~

~~10.6.3.1 –~~

~~One of the following shall serve as evidence that the fabric materials have the required flame propagation performance in accordance with NFPA 701:~~

- ~~(1) The authority having jurisdiction shall require a certificate or other evidence of acceptance by an organization acceptable to the authority having jurisdiction.~~
- ~~(2) The authority having jurisdiction shall require a report of tests made by other inspection authorities or organizations acceptable to the authority having jurisdiction.~~

~~10.6.4 – Electrical Equipment.~~

~~Electrical equipment associated with the inflatable amusement device shall comply with the applicable provisions of *NFPA 70* .~~

~~10.6.5 – Portable Generators.~~

~~Portable generators associated with the inflatable amusement device shall comply with the applicable provisions of NFPA 37.~~

~~10.6.6 – Fire Extinguishers.~~

~~Portable fire extinguishers shall be provided in accordance with Section 9.9 in the area of portable generators associated with inflatable amusement devices.~~

Statement of Problem and Substantiation for Public Input

We, the undersigned organizations and individuals, recommend removing NFPA 101 section 10.6. This section requires a flammability test for children's inflatable amusement devices that is commonly met with chemical flame retardants. This exposes children to unnecessary and potentially harmful flame retardants without any proven fire-safety benefit.

This standard addresses a non-existent problem. Historically, there haven't been any reported fire incidents for inflatable amusement devices covered by this standard, nor have there been prior flammability standards for such devices. Requiring materials to pass the flammability test NFPA 701 method 2 or similar tests will needlessly expose children to flame retardants that have been shown to cause cancer, neurological harm, and endocrine disruption.

Removing this language would also bring NFPA 101 in line with standards for similar products like children's tents (as updated in CA AB267).

To safe-guard children's health, we request the removal of section 10.6 from NFPA 101.

Sincerely,

Green Science Policy Institute
Children Now
Nantucket PFAS Action Group
Families Advocating for Chemical and Toxics Safety
National Stewardship Action Council
Maternal and Child Health Access
Non-Toxic Neighborhoods
Sonoma SASS
Moms Advocating Sustainability
Non-Toxic Communities
Safe Healthy Playing Fields and One Montgomery Green
Conservation Action Fund for Education
Récolte Energy
SEE (Social Eco Education)
Southern California Watershed Alliance
CleanEarth4Kids.org
TDSI (Thought Delivery Systems, Inc.)
Environmental Health Trust
Protect Wild Petaluma
Non Toxic Communities
California Brain Tumor Association
Design Chain Associates, LLC
Alliance of Nurses for Healthy Environments
Clean Water Action
Friends of the Earth
Center for Environmental Health
Our Bodies Ourselves
Beyond Pesticides
Community Union Inc.
Megan Sullivan
Christine Hoex

Submitter Information Verification

Submitter Full Name: Ariana Spentzos
Organization: Green Science Policy Institute
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 03 21:04:44 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: Inflatable amusement devices can present significant fire hazards if not properly regulated and need to be addressed by the Code. ASTM F2374 is an important standard that is recognized and supported by the inflatable amusement device industry. Inflatable amusement devices utilize continuous electrical sources, sometimes using generators in close proximity which creates an additional hazard.



Public Input No. 87-NFPA 101-2024 [Section No. 10.6.3]

10.6.3 Materials of Construction.

The inflatable amusement devices shall be constructed of noncombustible materials or of materials meeting the flame propagation criteria of Test Method 2 of NFPA 701, except as permitted by 10.6.3.1.

10.6.3.1

Fabrics that have met the required flame propagation performance in accordance with Test Method 1 of NFPA 701 shall be acceptable for use if permitted by ASTM F2374.

10.6.3.2

One of the following shall serve as evidence that the fabric materials have the required flame propagation performance in accordance with NFPA 701:

- (1) The authority having jurisdiction shall require a certificate or other evidence of acceptance by an organization acceptable to the authority having jurisdiction.
- (2) The authority having jurisdiction shall require a report of tests made by other inspection authorities or organizations acceptable to the authority having jurisdiction.

10.6.3.3 If compliance with a different fire test is required by local, state or federal law, additional evidence for compliance with such a fire test shall be provided.

(Update ASTM F2374 to the 2022 edition)

Statement of Problem and Substantiation for Public Input

ASTM F2374 has been revised in 2022 so that "internal gusset fabrics" are permitted if they have been tested to the less severe NFPA 701 test method 1 instead of test method 2 because it is very difficult (almost impossible) to provide these lightweight fabrics with the appropriate fire performance for test method 2. In view of the fact that these fabrics are internal to the devices, the permission for a less severe fire test should not cause fire safety concerns. ASTM F2374 also requires that any other fire test that an ahj could ask for be conducted and the results provided. This PI prefers to reference ASTM F2374 instead of trying to define "internal gusset fabric."

The text of ASTM F2374 in the relevant section is as follows.

5.9.2 Flammability:

5.9.2.1 Fabrics used for inflatable amusement devices shall comply with the flame propagation performance criteria of NFPA 701 (2019) Test Method 2. Fabrics used for internal gusset shall comply with the flame propagation performance of NFPA 701 (2019) Test Method 1 or Test Method 2. If compliance with a different fire test is required by local, state or federal law, additional evidence for compliance with such a

fire test shall be provided in accordance with 5.9.2.2.

5.9.2.2 Flammability testing documentation shall be provided by the manufacturer of the materials used in the production of the inflatable amusement device.

- (1) Material testing shall be performed by an independent testing facility utilized by the materials manufacturer.
- (2) The testing date on the flammability testing documentation shall be within 3 years of the material manufacture date.

Note that Terra has modified the PI giving the impression that more changes have been made than proposed. The only changes proposed are as follows:

1. The addition of the words "except as permitted by 10.6.3.1" to the end of 10.6.3.
2. Renumbering section 10.6.3.1 as 10.6.3.2 without change.

3. New section 10.6.3.3.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Street Address:
City:
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Zip:
Submittal Date: Mon May 06 18:57:39 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: [FR-6545-NFPA 101-2024](#)

Statement: ASTM F2374 has been revised in 2022 so that "internal gusset fabrics" are permitted if they have been tested to the less severe NFPA 701 test method 1 instead of test method 2 because it is very difficult (almost impossible) to provide these lightweight fabrics with the appropriate fire performance for test method 2. In view of the fact that these fabrics are internal to the devices, the permission for a less severe fire test should not cause fire safety concerns. ASTM F2374 also requires that any other fire test that an AHJ could ask for be conducted and the results provided. This revision references ASTM F2374 instead of trying to define "internal gusset fabric."



Public Input No. 359-NFPA 101-2024 [Section No. 10.7.1.2]

10.7.1.2

Modular rooms and sleep pods shall comply with other requirements in the *Code*, including requirements in 10.3.2 and 10.3.3 related to upholstered furniture and mattresses. These provisions do not exempt modular rooms and sleep pods from any applicable ventilation codes.

Statement of Problem and Substantiation for Public Input

Deep concerns have been expressed about adequate ventilation in these small chambers. One study showed that within 20 minutes a CO₂ level of 5,000 ppm was reached with only one occupant inside of a very leaky chamber. From that study it has been suggested that the CO₂ levels in the compartment could reach the dangerous levels of 40,000 ppm in only a few hours. It can also be suggested that, at that rate of CO₂ increase, after 8 hours in such a compartment, the CO₂ level could increase to 120,000 ppm. Death can occur at 100,000 ppm ("Carbon Dioxide Poisoning", N. Langford, Toxicology Review. 2005;24(4);229-35, abstract at <https://pubmed.ncbi.nlm.nih.gov/16499405/>) Unfortunately the applicable UL standard has no requirements for ventilation to meet the occupants needs. This proposal is just an acknowledgement of ventilation issues not being addressed in the UL standard. The committee acted similarly with regard to other codes, by requiring larger sleep pods and modular units to satisfy building code when the size of the unit is larger than expected (10.7.2.2). Thus, having a provision like this is in line with what the committee has done before.

Submitter Information Verification

Submitter Full Name: Stanley Harbuck
Organization: School of Building Inspection
Affiliation: American Public Health Association
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 04 15:49:27 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: [FR-6529-NFPA 101-2024](#)

Statement: Deep concerns have been expressed about adequate ventilation in these small chambers. One study showed that within 20 minutes a CO₂ level of 5,000 ppm was reached with only one occupant inside of a very leaky chamber. From that study it has been suggested that the CO₂ levels in the compartment could reach the dangerous levels of 40,000 ppm in only a few hours. It can also be suggested that, at that rate of CO₂ increase, after 8 hours in such a compartment, the CO₂ level could increase to 120,000 ppm. Death can occur at 100,000 ppm ("Carbon Dioxide Poisoning", N. Langford, Toxicology Review. 2005;24(4);229-35, abstract at <https://pubmed.ncbi.nlm.nih.gov/16499405/>) Unfortunately the applicable UL standard has no requirements for ventilation to meet the occupants needs. This proposal is just an acknowledgement of ventilation issues not being addressed in the UL standard. The committee acted similarly with regard to other codes, by requiring larger sleep pods and

modular units to satisfy building code when the size of the unit is larger than expected (10.7.2.2). Thus, having a provision like this is in line with what the committee has done before.



Public Input No. 242-NFPA 101-2024 [New Section after 10.7.5]

10.7.6* Occupant Notification System.

Where provided in areas covered by an occupant notification system, the audible and visible signals shall extend into the interior of the modular room or sleep pod.

Statement of Problem and Substantiation for Public Input

Public Input #239 proposes moving the modular room and sleep pod requirements from Chapter 10 to Chapter 4. This is one of several proposals that moves the occupant notification requirements for modular rooms from the occupancy chapters to the general section on modular rooms with no substantive changes. It is assumed that if Section 10.7 moves this new section will be 4.6.18.6.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 239-NFPA 101-2024 [Global Input]</u>	

Submitter Information Verification

Submitter Full Name: Howard Hopper
Organization: UL Solutions
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 03 17:15:00 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: FR-6547-NFPA 101-2024

Statement: The committee recognizes that this topic may exceed the scope of the INT committee, however the sleep pod requirements are currently within Chapter 10. The committee requests that the Correlating Committee review the placement of these requirements and determine where these requirements belong-with chapter 4, Chapter 10, a new chapter, or a new committee. These requirements are currently in the mercantile and business occupancy chapters and have been proposed to be removed from those sections and relocated in Chapter 10. The terminology "fire alarm notification system" was updated to be consistent with other areas of the Code. Additionally, visible was changed to visual to correlate with NFPA 72. A separate FR includes the annex material to provide additional guidance.



Public Input No. 123-NFPA 101-2024 [New Section after 10.7.5.2]

10.8 Toilet Partitions

Toilet partitions used to provide privacy in public restrooms shall be considered interior finish.

10.8.1

The materials used to construct toilet partitions shall comply with the requirements for interior wall finish materials in Section 10.2.

10.8.2

When toilet partitions are constructed entirely of steel, testing for compliance with Section 10.2 shall not be required.

Statement of Problem and Substantiation for Public Input

There has been much debate about toilet partitions (or bathroom partitions) constructed of plastic materials and of steel. It has been shown that some of the materials used to construct toilet partitions can be ignited easily and generate significant heat release after burning. It is important to provide added clarification beyond what is in section 10.2.1.4. Therefore, an associated PI will recommend deleting section 10.2.1.4.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 122-NFPA 101-2024 [Section No. 10.2.1]</u>	
<u>Public Input No. 122-NFPA 101-2024 [Section No. 10.2.1]</u>	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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City:
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Submittal Date: Thu May 23 19:06:34 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: FR-6523-NFPA 101-2024

Statement: This moves the existing requirements for toilet room privacy partitions from 10.2.1.4 to a new section in 10.8. This does not change the base requirement that washroom partitions are considered interior finish. A new requirement was developed to exempt noncombustible partitions from unnecessary testing. Partitions that contain some combustible components are not exempt from testing requirements.



Public Input No. 125-NFPA 101-2024 [Section No. A.10.2.2]

A.10.2.2 —

Table A.10.2.2 provides a compilation of the interior finish requirements of 7.1.4 and the occupancy chapters (Chapters 12 through 42) of this Code.

Table A.10.2.2 Interior Finish Classification Limitations

Occupancy Exits Exit Access Corridors Other Spaces Assembly — new — >300-occupant load A

I or II A or B

I or II A or B

NA ≤300-occupant load A

I or II A or B

I or II A, B, or C

NA Assembly — existing — >300-occupant load A A or B A or B ≤300-occupant load A A or B A, B, or C Educational — new A

I or II A or B

I or II A or B; C on low partitions*

NA Educational — existing A A or B A, B, or C Day-care centers — new A

I or II A

I or II A or B

NA Day-care centers — existing A or B A or B A or B Day-care homes — new A or B

or II A or B A, B, or C

NA Day-care homes — existing A or B A, B, or C A, B, or C Health care — new A A A - NA B on lower portion of corridor wall* B in small individual rooms* - I or II I or II NA Health care — existing A or B A or B A or B Detention and correctional — new (sprinklers mandatory) A or B

I or II A or B

I or II A, B, or C

NA Detention and correctional — existing A or B

I or II A or B

or II A, B, or C

NA One- and two-family dwellings and lodging or rooming houses A, B, or C A, B, or C A, B, or

C Hotels and dormitories — new A

I or II A or B

I or II A, B, or C

NA Hotels and dormitories — existing A or B

I or II* A or B

I or II* A, B, or C

NA Apartment buildings — new A

I or II A or B

I or II A, B, or C

NA Apartment buildings — existing A or B

I or II* A or B

I or II* A, B, or C

NA Residential board and care — (*See Chapters 32 and 33.*) — Mercantile — new A or B

I or II A or B A or B

NA Mercantile — existing — Class A or class B stores A or B A or B Ceilings — A or B; walls — A, B, or C Class C stores A, B, or C A, B, or C A, B, or C Business and ambulatory

health care — new A or B

I or II A or B A, B, or C

NA Business and ambulatory

health care — existing A or B A or B A, B, or C Industrial A or B

I or II A, B, or C

I or II A, B, or C

NA Storage A or B

I or II A, B, or C A, B, or C

NA

*See corresponding chapters for details.

NA: Not applicable.

Notes:

(1) Class A interior wall and ceiling finish — flame spread index, 0–25 (new applications); smoke developed index, 0–450.

(2) Class B interior wall and ceiling finish — flame spread index, 26–75 (new applications);

smoke developed index, 0–450.

~~(3) Class C interior wall and ceiling finish — flame spread index, 76–200 (new applications); smoke developed index, 0–450.~~

~~(4) Class I interior floor finish — critical radiant flux, not less than 0.45 W/cm^2 .~~

~~(5) Class II interior floor finish — critical radiant flux, not less than 0.22 W/cm^2 , but less than 0.45 W/cm^2 .~~

~~(6) Automatic sprinklers — where a complete standard system of automatic sprinklers is installed, interior wall and ceiling finish with a flame spread rating not exceeding Class C is permitted to be used in any location where Class B is required, and Class B interior wall and ceiling finish is permitted to be used in any location where Class A is required; similarly, Class II interior floor finish is permitted to be used in any location where Class I is required, and no interior floor finish classification is required where Class II is required. These provisions do not apply to new detention and correctional occupancies.~~

~~(7) Exposed portions of structural members complying with the requirements for heavy timber construction are permitted.~~

Statement of Problem and Substantiation for Public Input

The associated PI No 124 proposes to move the table to the body of the code.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 124-NFPA 101-2024 [Section No. 10.2.2]	
Public Input No. 124-NFPA 101-2024 [Section No. 10.2.2]	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Thu May 23 19:15:25 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: [FR-6546-NFPA 101-2024](#)

Statement: Within the committee statement provided in PI 359 a study was referenced which addresses concerns regarding levels of CO₂ within sleep pods and modular rooms. Proper ventilation needs to be maintained. The Correlating Committee should address the broad concept of where requirements for sleep pods and modular rooms belong, as ventilation and other systems are outside of the scope of the INT committee.



Public Input No. 130-NFPA 101-2024 [Section No. A.10.3.1]

A.10.3.1.2 _ --

Testing per NFPA 701 applies to textiles and films used in a hanging configuration. If the textiles are to be applied to surfaces of buildings or backing materials as interior finishes for use in buildings, they should be treated as interior wall and ceiling finishes in accordance with Section 10.2 of this *Code*, and they should then be tested for flame spread index and smoke developed index values in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, or UL 723, *Test for Surface Burning Characteristics of Building Materials*, or for flame spread and flashover in accordance with NFPA 265. Films and other materials used as interior finish applied to surfaces of buildings should be tested for flame spread index and smoke developed index values in accordance with ASTM E84 or UL 723 or for heat and smoke release and flashover in accordance with NFPA 286.

The test results from NFPA 701 are suitable for classification purposes but should not be used as input into fire models, because they are not generated in units suitable for engineering calculations.

Statement of Problem and Substantiation for Public Input

relocation as a result of relocation of all decoration sections by an associated PI.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 126-NFPA 101-2024 [Section No. 10.2.4.16]	
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	
Public Input No. 128-NFPA 101-2024 [Section No. 10.3.4]	
Public Input No. 129-NFPA 101-2024 [Section No. 10.3.9]	
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	
Public Input No. 131-NFPA 101-2024 [Section No. A.10.3.4]	

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Committee: SAF-INT

Committee Statement

Resolution: [FR-6542-NFPA 101-2024](#)

Statement: This is a reorganization of section 10.3 to group all of the decorations together. The more common, larger furnishings were moved to the beginning (mattresses, furniture) of the section. No technical changes were intended by the section. A task group has been developed to take a careful look at the organization of this section for the Second Draft meeting.



Public Input No. 131-NFPA 101-2024 [Section No. A.10.3.4]

A.10.3.4 — 1.1 ___

Natural cut Christmas trees that are not effectively treated to improve fire performance, ordinary crepe paper decorations, and pyroxylin plastic decorations might be classified as highly flammable. See 10.3.9 for 1.3 for requirements for combustible artificial decorative vegetation. See NFPA 1, Section 10.13, for provisions for natural cut Christmas trees.

Statement of Problem and Substantiation for Public Input

relocation as a result of associated PI

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 126-NFPA 101-2024 [Section No. 10.2.4.16]	
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	
Public Input No. 129-NFPA 101-2024 [Section No. 10.3.9]	
Public Input No. 130-NFPA 101-2024 [Section No. A.10.3.1]	
Public Input No. 128-NFPA 101-2024 [Section No. 10.3.4]	
Public Input No. 127-NFPA 101-2024 [Section No. 10.3.1]	

Submitter Information Verification

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Submittal Date: Thu May 23 21:13:28 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: [FR-6542-NFPA 101-2024](#)

Statement: This is a reorganization of section 10.3 to group all of the decorations together. The more common, larger furnishings were moved to the beginning (mattresses, furniture) of the section. No technical changes were intended by the section. A task group has been developed to take a careful look at the organization of this section for the Second Draft meeting.



Public Input No. 246-NFPA 101-2024 [New Section after A.10.7.4]

A.10.7.6

Extending the audible and visible signals into the interior does not necessarily mean additional devices need to be installed. If the occupant notification systems installed to serve the area where the modular room is to be located provide the required audible and visible signals within the modular room, additional devices are not necessary. If the occupant notification systems installed to serve the area where the modular room is to be located do not provide the required audible and visible signals, then additional devices would be required to be installed within the modular room.

Statement of Problem and Substantiation for Public Input

Public Input #239 proposes moving the modular room and sleep pod requirements from Chapter 10 to Chapter 4. This is one of several proposals that moves the occupant notification requirements (annex notes) for modular rooms from the occupancy chapters to the general section on modular rooms with no changes. It is assumed that if Section 10.7 moves this new annex note will be A.4.6.18.6.

Submitter Information Verification

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Submittal Date: Mon Jun 03 17:39:40 EDT 2024
Committee: SAF-INT

Committee Statement

Resolution: [FR-6668-NFPA 101-2024](#)

Statement: This annex note is currently in the mercantile and business occupancy chapters and has been proposed to be moved to A.10. This aligns with the action taken on Public Input #242. The committee requests that the Correlating Committee review where the requirements for sleep pods and modular rooms belong.