Public Input No. 126-NFPA 5000-2021 [Global Input]

Annex G

3D Printed Building Construction

G 3D Printed Building Construction

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

Information in this annex is intended to be adopted by the jurisdiction at the discretion of the adopting jurisdiction. Thus, although the language in this annex is written in mandatory language, it is not intended to be enforced or applied unless specifically adopted by the jurisdiction.

It is anticipated that 3D printed building construction will be covered by a building permit and the administrative provisions of the code, in addition to the traditional construction practices and materials, including the additional inspection requirements outlined in this annex.

G.1 Administration.

G.1.1 Purpose.

The purpose of this annex shall be to provide requirements covering the design, construction, and inspection of 3D printed building construction. This Annex, when used in conjunction with applicable prescriptive or performance requirements in this code, will evaluate the critical parameters of the 3D printed building techniques and materials being printed, and help ensure the construction provides an equivalent level of safety, durability and performance equivalent to construction techniques in the body of the code.

G.1.2 Scope.

The provisions of this annex shall apply to buildings, structures and building elements fabricated in whole or in part using 3D printed construction techniques.

G.2 General.

G.2.1 Referenced Standards

UL LLC Outline of Investigation for 3D Printed Building Construction, 2019

G.2.2 Definitions.

G.2.2.1 3D Printed Building Construction.
A process for fabricating buildings, structures and building elements from 3D model data using automated equipment that deposits construction material (additive manufacturing material) in a layer-upon-layer fashion.

G.2.2.2 Additive Manufacturing Materials.
Materials used by the 3D printer to produce the building element or structure.

G.2.2.3 Fabrication Process Description.
A detailed description of the additive manufacturing materials, production equipment, and details on the deposition, curing, finishing, insertion of components and other methods used to construct building elements such as walls, partitions, roof assemblies and structural components, and the means used to connect assemblies together, if needed.

G.2.2.4 Production Equipment.
The equipment, including the 3D printer, its settings, nozzles, fittings, and other accessories used in the fabrication process.

G.2.3 Applicability.

G.2.3.1 Minimum Requirements.

3D printed building construction shall be designed, constructed and inspected in accordance with the provisions contained in this annex and other applicable requirements in this code.

G.3 Design.

G.3.1 Design organization.

3D printed building construction shall be designed by an organization certified in accordance with UL 3401 by an approved agency and approved by the AHJ in accordance with this section.

G.3.2 Design approval.

The structural design, construction documents and UL 3401 report of findings shall be submitted for review and approval by the AHJ in accordance with Section 1.7.6.

G.4 Construction.

G4.1 3D printed buildings, structures and building elements shall be constructed in accordance with this section.

G4.2 The 3D printed building construction method, consisting of the production equipment and fabrication process, shall be in accordance with the UL 3401 report of findings. The unique identifier of the construction method used shall match the identifier in the UL 3401 report of findings.

G4.3 Only the listed additive manufacturing materials identified in the UL 3401 report of findings shall be used to fabricate the building structure or system components. Containers of the manufacturer's proprietary additive manufacturing materials shall be labeled. Non-proprietary additive manufacturing materials, including but not limited to sand, aggregate and other common commercially available construction materials shall be in accordance with the manufacturer's instructions and the UL 3401 certification.

G4.4 Additive manufacturing materials shall only be deposited where ambient temperature and environmental conditions at the job site are within limits specified in the UL 3401 report of findings. The maximum number of layers permitted, specified curing time and any surface preparation or finishing shall be performed as specified in the UL 3401 report of findings.

G5 Inspections.

G5.1 In addition to the inspections in Section 1.7.6, an initial inspection of the production equipment, including 3D printer, and the fabrication process shall be performed after the production equipment is located on site and before 3D printing has begun. The inspection shall be conducted by a qualified inspector approved by the agency that evaluated the fabrication process for compliance with UL 3401. The inspection shall verify that the fabrication process, production equipment, 3D-printing parameters and additive manufacturing materials, are in accordance with the UL 3401 report of findings.

G5.1.1 Where approved by the AHJ, inspections of the production equipment, including 3D printer, and the fabrication process used to construct replicable buildings shall be conducted on the first building to be constructed, and on a selected number of subsequent buildings, where the same equipment, equipment operators and fabrication process are used on all buildings. The number of inspections to be performed shall be determined by the AHJ.

Statement of Problem and Substantiation for Public Input

3D building construction has moved from a conceptual stage to reality, and projects are being proposed in an increasing number of jurisdictions. Unfortunately the prescriptive design and construction requirements in this code are not applicable to 3D printed fabrication techniques, so AHJs have to approve this construction based on limited equivalency evaluations that may not take into account variations in material properties introduced by the 3D printing process, or variances in the physical characteristics of the construction materials used.

The UL 3401 Outline of Investigation for 3D Printed Building Construction was developed to evaluate critical aspects of this construction process, and level the playing field so that 3D printed building techniques comply with an equivalent level of safety and performance as legacy construction techniques currently in the code.

This proposal introduces an Annex G, which is not mandatory unless specifically referenced in an adopting ordinance. The Annex includes definitions, and requirements for 3D printed building design, construction and inspections, which rely on the design being evaluated in advance by an approved agency for compliance with UL

3401. The resulting compliance report includes the information needed by the contractor and AHJ to verify compliance with applicable code requirements, and to verify that the 3D printing process and materials used on site are the same as those used during the UL 3401 evaluation and testing. The Report of Findings produced under this process should be submitted for review and approval.

The inspection requirements in Section G5 are needed because the portions of the fabrication process such as 3D printer settings, deposition rates and thickness, and curing processes, require special expertise to evaluate, especially when they include proprietary formulations, equipment and settings.

At least one company currently complies with UL 3401 criteria, and others are in process.

If this new annex is accepted it is assumed that the informational annex will move to Annex H

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Committee Statement

Resolution: The committee views the inclusion of the Annex on 3D printed construction is premature given the work being conducted on various construction properties. The committee also questioned the requirement to have a non-consensus single source agency having approval over all aspects of a 3D printed project. The committee questioned the inspection process as outlined in this proposal as it pertains to the approach and terminology as found within Chapter 40. The committee encourages the submitter to submit Public Comment on this topic for review during the Second Draft phase.

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7.1.5.2.2.2 Where a one- or two-family dwelling, or townhouse, is protected with an approved automatic sprinkler system that is installed in accordance with ~~NFPA 13D~~ 55.3.1.1(3) or ~~NFPA 13R~~ 55.3.1.1(2), as applicable, the distance in 7.1.5.2.2.1 shall be permitted to be increased to 150 ft (46 m).

7.1.5.2.3.2 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with ~~NFPA 13~~ 55.3.1.1(1), ~~NFPA 13R~~ 55.3.1.1(2), or ~~NFPA 13D~~ 55.3.1.1(3), the distance shall be permitted to be increased to 450 ft (137 m).

7.4.1.4.7 * Power-Generation Structures. Structures of Type I or Type II construction used exclusively for the enclosure of steam generators, steam turbines, gas turbines, heat recovery generators, and flue gas treatment equipment shall be permitted to be of unlimited height and area when special hazards are protected by an approved automatic suppression system in accordance with NFPA 11, NFPA 12, ~~NFPA 13~~ 55.3.1.1(1), NFPA 15, NFPA 16, NFPA 17, NFPA 750, or NFPA 2001.

7.6.2.3.4.2 The sum of the allowable area ratios for all stories in buildings protected in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall not be greater than the following:

(1) 1.0 for one-story buildings

(2) 2.0 for two-story buildings

(3) 3.0 for three-story buildings

(4) 4.0 for four-story buildings

8.3.3.11.2.2 Single opening protectives in fire walls shall not be limited in size where the buildings on both sides of the fire wall are protected throughout by automatic sprinkler systems in accordance with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2).

8.12.5.2 Where permitted by Chapters 15 through 31 and 33 through 34, unenclosed vertical openings created by convenience stairways shall be permitted as follows:

(3) The convenience stair openings shall be protected ~~in accordance~~ with the method detailed for the protection of vertical openings in ~~NFPA 13~~ accordance with 55.3.1.1(1).

8.12.6.2 Any escalators and moving walks not constituting an exit, or serving as a required means of egress, shall have their floor openings enclosed or protected as required for other vertical openings, unless permitted by the following:

(2) In buildings protected throughout by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2), escalators or moving walk openings shall be permitted to be protected ~~in accordance~~ with the method detailed in ~~NFPA 13~~ accordance with 55.3.1.1(1) or in accordance with a method approved by the authority having jurisdiction and the opening shall not connect more than four contiguous stories unless otherwise permitted by Chapters 15 through 31 and 33 through 34.

8.12.6.3 In buildings protected throughout by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2), escalators or moving walk openings shall be permitted to be protected by rolling steel shutters appropriate for the fire resistance rating of the vertical opening protected, and the following criteria shall be met:

(1) The shutters shall close automatically and independently of each other upon smoke detection and sprinkler operation.

(2) There shall be a manual means of operating and testing the operation of the shutter.

(3) The shutters shall be operated not less than once a week to ensure that they remain in proper operating condition.

(4) The shutters shall operate at a speed not to exceed 30 ft/min (0.15 m/s) and shall be equipped with a sensitive leading edge.

(5) The leading edge shall arrest the progress of a moving shutter and cause it to retract a distance of approximately 6 in. (150 mm) upon the application of a force not exceeding 20 lbf (90 N) applied to the surface of the leading edge.

(6) The shutter, following the retraction specified in 8.12.6.3(5), shall continue to close.

(7) The operating mechanism for the rolling shutter shall be provided with standby power complying with the provisions of Chapter 52.

8.14.1.2 The requirements of 8.14.1.1 shall not apply where any of the following conditions are met:

(1) Where the space is protected throughout by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1)

(2) Where concealed spaces serve as plenums

11.13.5.3 The absence of sprinklers in the normally unoccupied building service equipment support area as permitted by an exemption of ~~NFPA 13~~ 55.3.1.1(1), shall not cause a building to be classified as nonsprinklered for purposes of applying the provisions of 11.13.5.2.

15.4.2.9.1(2) The requirements of 15.4.2.9 shall not apply, provided that one of the following criteria is met: (2) Access shall not be required where the space created is protected by an approved sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

15.6.2.5.4.6 The requirement of 15.6.2.5.4 shall not apply to residential occupancies complying with ~~NFPA 13R~~ 55.3.1.1(2) or ~~NFPA 13D~~ 55.3.1.1(3) as appropriate.

16.4.7.6.1 Where required by 16.4.7.5, the proscenium opening shall be a listed, minimum 20-minute opening protective assembly, a fire curtain complying with NFPA 80, or an approved water curtain complying with ~~NFPA 13~~ 55.3.1.1(1).

19.3.5.6 Sprinklers shall not be required in clothes closets of patient sleeping rooms in hospitals where the area of the closet does not exceed 6 ft2 (0.55 m2), provided that the distance from the sprinkler in the patient sleeping room to the back wall of the closet does not exceed the maximum distance permitted by ~~NFPA 13~~ 55.3.1.1(1).

19.3.5.7 Sprinklers in areas where cubicle curtains are installed shall be in accordance with ~~NFPA 13~~ 55.3.1.1(1).

20.2.2.12.2 In buildings protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), and 55.3.2, two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge shall not be required.

20.2.5.2.1 A common path of travel shall be permitted for the first 100 ft (30 m) in a building protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), and 55.3.2.

20.2.5.3.1 In buildings protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), and 55.3.2, dead-end corridors shall not exceed 50 ft (15 m).

21.3.5.2 All buildings classified as Use Condition II, Use Condition III, Use Condition IV, or Use Condition V shall be protected throughout by an approved, electrically supervised automatic sprinkler system installed in accordance with ~~NFPA 13~~ 55.3.1.1(1).

22.3.5.2 Unless otherwise specified in Chapter 7, where modifications are permitted by this Code, based on the installation of an automatic sprinkler system, such modifications shall be permitted where the automatic sprinkler system complies with ~~NFPA 13~~ 55.3.1.1(1), ~~NFPA 13D~~ 55.3.1.1(3), or ~~NFPA 13R~~ 55.3.1.1(2).

22.3.5.3 Where an automatic sprinkler system is provided, either for total or partial building coverage, the system shall be in accordance with ~~NFPA 13~~ 55.3.1.1(1), ~~NFPA 13R~~ 55.3.1.1(2). or ~~NFPA 13D~~ 55.3.1.1(3)

23.3.6.1 Unless otherwise specified in Chapter 7, where modifications are permitted by this Code, based on the installation of an automatic sprinkler system, such modifications shall be permitted when the automatic sprinkler system complies with ~~NFPA 13~~ 55.3.1.1(1), ~~NFPA 13R~~ 55.3.1.1(2) or ~~NFPA 13D~~ 55.3.1.1(3).

23.3.6.2.2 In buildings four or fewer stories in height and not exceeding 60 ft (18.3 m) in height above the grade plane, systems in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall be permitted.

23.3.6.2.3 Systems in accordance with ~~NFPA 13D~~ 55.3.1.1(3) shall be permitted where all of the following requirements are met:

(1) The lodging or rooming house shall not be part of a mixed occupancy.

(2) Entrance foyers shall be sprinklered.

(3) Lodging or rooming houses with sleeping accommodations for more than eight occupants shall be treated as two-family dwellings with regard to the water supply.

23.3.6.2.4 In buildings sprinklered in accordance with ~~NFPA 13~~ 55.3.1.1(1), closets less than 12 ft2 (1.1 m2) in area in individual dwelling units shall not be required to be sprinklered.

23.3.6.2.5 In buildings sprinklered in accordance with ~~NFPA 13~~ 55.3.1.1(1), closets that contain equipment such as

washers, dryers, furnaces, or water heaters shall be sprinklered, regardless of size.

24.3.5.1 Unless otherwise specified in Chapter 7, where modifications are permitted by this Code, based on the installation of an automatic sprinkler system, such modifications shall be permitted where the automatic sprinkler system complies with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2).

24.3.5.4 Where an automatic sprinkler system is installed, either for total or partial building coverage, the system shall be in accordance with Section 55.3, as modified by 24.3.5.5. In hotel or dormitory occupancies up to and including four stories in height that are located in buildings not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall be permitted.

24.3.5.6 The provisions for draft stops and closely spaced sprinklers in accordance with ~~NFPA 13~~ 55.3.1.1(1) shall not apply to openings complying with 8.12.5 where the opening is within the guest room or guest suite.

25.3.5.1.2 In apartment buildings up to and including four stories in height that are located in buildings not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall be permitted.

25.3.5.1.3 Unless otherwise specified in Chapter 7, where modifications are permitted by this Code, based on the installation of an automatic sprinkler system, such modifications shall be permitted where the automatic sprinkler system complies with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2).

25.3.5.3 Closets. In buildings sprinklered in accordance with ~~NFPA 13~~ 55.3.1.1(1), closets shall meet the following requirements:

(1) Closets of less than 12 ft2 (1.1 m2) in individual dwelling units shall not be required to be sprinklered.

(2) Closets that contain equipment such as washers, dryers, furnaces, or water heaters shall be sprinklered, regardless of size.

25.3.5.4 Convenience Openings. The draft stop and closely spaced sprinkler requirements that are in accordance with ~~of NFPA 13~~ 55.3.1.1(1) shall not be required for convenience openings complying with 8.12.5 where the convenience opening is within the dwelling unit.

26.2.3.5.2 Where an automatic sprinkler system is installed, for either total or partial building coverage, all of the following requirements shall be met:

(1) The system shall be in accordance with ~~NFPA 13~~ 55.3.1.1(1) and shall initiate the fire alarm system in accordance with 26.2.3.4.1.

(2) The adequacy of the water supply shall be documented to the authority having jurisdiction.

26.2.3.5.2.1 In buildings four or fewer stories in height and not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall be permitted. All habitable areas, closets, roofed porches, roofed decks, and roofed balconies shall be sprinklered.

26.2.3.5.2.2 An automatic sprinkler system complying with ~~NFPA 13D~~ 55.3.1.1(3), with a 30-minute water supply, shall be permitted. All habitable areas, closets, roofed porches, roofed decks, and roofed balconies shall be sprinklered. Facilities with more than eight residents shall be treated as two-family dwellings with regard to water supply.

26.2.3.5.2.3 An automatic sprinkler system complying with ~~NFPA 13D~~ 55.3.1.1(3), with a 30-minute water supply, shall be permitted. All habitable areas and closets shall be sprinklered. Facilities with more than eight residents shall be treated as two-family dwellings with regard to water supply.

26.2.3.5.3 Automatic sprinkler systems installed in accordance with ~~NFPA 13~~ 53.3.1.1(1) and ~~NFPA 13R~~ 53.3.1.1(2) shall be provided with electrical supervision in accordance with 55.3.2.

26.2.3.5.4 Automatic sprinkler systems installed in accordance with ~~NFPA 13D~~ 55.3.1.1(3) shall be provided with valve supervision by one of the following methods:

(1) Single, listed control valve that shuts off both domestic and sprinkler systems, and separate shutoff for the domestic system only

(2) Electrical supervision in accordance with 55.3.2

(3) Valve closure that causes the sounding of an audible signal in the facility

26.3.3.5.1 General. All buildings shall be protected throughout by an approved automatic sprinkler system installed in accordance with ~~NFPA 13~~ 55.3.1.1(1) and quick-response or residential sprinklers shall be provided throughout.

27.1.2.2.4 Where a number of tenant spaces under different management are located in the same building, the aggregate gross area for subclassification shall be determined in accordance with any of the following:

(1) Where tenant spaces are not separated, the aggregate gross floor area of all such tenant spaces shall be used in determining classification per 27.1.2.2.1.

(2) Where individual tenant spaces are separated by fire barriers with a 2-hour fire resistance rating, each tenant space shall be individually classified.

(3) Where tenant spaces are separated by fire barriers with a 1-hour fire resistance rating and the building is protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, each tenant space shall be individually classified.

(4) The tenant spaces in a mall structure in accordance with 27.4.4 shall be classified individually.

27.1.3.3.2 Openings in the fire barrier shall not be required to be protected with fire-protection-rated opening protectives in enclosed parking structures that are protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, or in open parking structures, provided that all of the following conditions are met:

(1) The openings do not exceed 25 percent of the area of the fire barrier in which they are located.

(2) The openings are used as a public entrance and for associated sidelight functions.

(3) The buildings containing the mercantile occupancy are protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

(4) Means are provided to prevent spilled fuel from accumulating adjacent to the openings and entering the building.

(5) Physical means are provided to prevent vehicles from being parked or driven within 10 ft (3050 mm) of the openings.

(6) The openings are protected as required for a smoke partition in accordance with Section 8.10, with no minimum fire protection rating required.

27.2.2.2.6 Sensor-release of electrical locking systems complying with 11.2.1.6.2 shall be permitted in buildings protected throughout by an approved, supervised fire detection system in accordance with Section 55.2 or an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

27.2.2.12.2 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge shall not be required.

27.2.4.4 A single means of egress shall be permitted in a Class C mercantile occupancy, provided that the travel distance to the exit or to a mall concourse does not exceed 100 ft (30 m), and the story on which the occupancy is located and all communicating levels that are traversed to reach the exit or mall concourse are protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

27.2.4.5 A single means of egress to an exit or to a mall concourse shall be permitted from a mezzanine within any Class A, Class B, or Class C mercantile occupancy, provided that the common path of travel does not exceed 75 ft (23 m), or does not exceed 100 ft (30 m) if protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

27.2.5.2 Common Paths of Travel. Common paths of travel shall be limited by any of the following:

(1) They shall not exceed 75 ft (23 m) in mercantile occupancies.

(2) They shall not exceed 100 ft (30 m) in mercantile occupancies where the building is protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

27.2.5.3.1 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, dead-end corridors shall not exceed 50 ft (15 m).

27.2.5.8 Exit Access Through Storerooms. Exit access in Class A and Class B mercantile occupancies that are protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, and exit access in all Class C mercantile occupancies, shall be permitted to pass through storerooms, provided that all of the following conditions are met:

(1) Not more than 50 percent of exit access shall be provided through the storeroom.

(2) The storeroom shall not be subject to locking.

(3) The main aisle through the storeroom shall be not less than 44 in. (1120 mm) wide.

(4) The path of travel through the storeroom shall be defined, direct, and continuously maintained in an unobstructed condition.

27.2.6.2 Travel distance in mercantile occupancies in buildings protected throughout by an approved, supervised

automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2 shall not exceed 250 ft (76 m).

27.3.1 Protection of Vertical Openings. Any vertical opening shall be protected in accordance with Section 8.12, except under any of the following conditions:

(1) In Class A or Class B mercantile occupancies protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2 unprotected vertical openings shall be permitted at one of the following locations:

(a) Between any two floors

(b) Among the street floor, the first adjacent floor below, and the adjacent floor (or mezzanine) above

(1) In Class C mercantile occupancies, unprotected openings shall be permitted between the street floor and the mezzanine.

(2) The draft stop and closely spaced sprinkler requirements of ~~NFPA 13~~ 55.3.1.1(1) shall not be required for unenclosed vertical openings permitted in 27.3.1(1) and 27.3.1(2).

(3) Unenclosed vertical openings in accordance with 8.12.5.2 shall be permitted and the provisions of 8.12.5.2(5) shall not apply.

(4) Unenclosed vertical openings in accordance with 8.12.6.2 shall be permitted and the number of contiguous stories shall not be limited.

27.3.2.1.2 In general storage and stock areas protected by an automatic extinguishing system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, an enclosure, if provided, shall be exempt from the provisions of 8.15.2.

27.3.4.2 Initiation. Initiation of the required fire alarm system shall be by any one of the following:

(1) Manual means in accordance with 55.2.2.1

(2) Approved automatic fire detection system in accordance with 55.2.2.1that provides protection throughout the building and the provision of 55.2.2.6 shall apply.

(3) Approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, in accordance with 55.2.2.1 that provides protection throughout the building and the provision of 55.2.2.6 shall apply.

27.3.6.1 Where access to exits is provided by corridors, such corridors shall be separated from use areas by walls having a fire resistance rating of not less than 1 hour in accordance with Section 8.4, unless one of the following conditions exists:

(1) Where exits are available from an open floor area

(2) Within a space occupied by a single tenant

(3) Within buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~55.3.1.1(1) and 55.3.2

27.4.4.6.9.2 Rooms housing building service equipment, janitor closets, and service elevators shall be permitted to open directly onto exit passageways, provided that all of the following criteria are met:

(1) The required fire resistance rating between such rooms or areas and the exit passageway shall be maintained in accordance with 11.1.3.2.

(2) Such rooms or areas shall be protected by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2; however, the exceptions in ~~NFPA 13~~ 55.3.1.1(1) that permit the omission of sprinklers from such rooms shall not be permitted.

(3) Service elevators opening into the exit passageway shall not open into areas other than exit passageways.

(4) Where exit stair enclosures discharge into the exit passageway, the provisions of 11.2.1.5.9 shall apply, regardless of the number of stories served.

27.4.4.8.1.1 The mall structure and all anchor buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), 55.3.2, and 27.4.4.8.1.

27.4.5.3 Storage, Arrangement, Protection, and Quantities of Hazardous Commodities. The storage, arrangement, protection, and quantities of hazardous commodities shall be in accordance with the applicable provisions of the following:

(1) NFPA 1

(2) ~~NFPA 13~~ 55.3.1.1(1)

(3) NFPA 30

(4) NFPA 30B

(5) NFPA 400, Chapter 14, for organic peroxide formulations

(6) NFPA 400, Chapter 15, for oxidizer solids and liquids

(7) NFPA 400, various chapters, depending on characteristics of a particular pesticide

27.4.5.5 Extinguishment Requirements. Bulk merchandising retail buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2 and the applicable provisions of the following:

(1) NFPA 1

(2) ~~NFPA 13~~

(3) NFPA 30

(4) NFPA 30B

28.2.4.5 A single means of egress shall be permitted from a mezzanine within a business occupancy, provided that the common path of travel does not exceed 75 ft (23 m), or 100 ft (30 m) if protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

28.2.4.6 A single means of egress shall be permitted for a maximum two-story, single-tenant space provided that both of the following criteria are met:

(1) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

(2) The total travel to the outside does not exceed 100 ft (30 m).

28.2.5.2.1 Common path of travel shall not exceed 100 ft (30 m) in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

28.2.5.3.1 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, dead-end corridors shall not exceed 50 ft (15 m).

28.2.6.3 Travel distance shall not exceed 300 ft (91 m) in business occupancies protected throughout by an approved, supervised, automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

28.3.4.2 Initiation. Initiation of the required fire alarm system shall be by any one of the following:

(1) Manual means in accordance with 55.2.2.1

(2) Approved automatic fire detection system in accordance with 55.2.2.1 that provides protection throughout the building and the provision of 55.2.2.6 shall apply.

(3) Approved, supervised automatic sprinkler system complying with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2 in accordance with 55.2.2.1 that provides protection throughout the building and the provision of 55.2.2.6 shall apply.

28.3.6.1 Where access to exits is provided by corridors, such corridors shall be separated from use areas by fire barriers in accordance with Section 8.4 having a minimum 1-hour fire resistance rating, unless one of the following conditions exists:

(1) Where exits are available from an open floor area

(2) Within a space occupied by a single tenant

(3) Within buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2

Fix Table 29.2.6.1 in Terra View

29.2.6.2 Power-Generation Buildings. Buildings of Type I or Type II construction used exclusively for the enclosure of steam generators, steam turbines, gas turbines, heat recovery generators, and flue gas treatment equipment shall be permitted to have a maximum travel distance of 400 ft (122 m) where all special hazards are protected by approved automatic suppression systems in accordance with one or more of the following standards, as applicable:

(1) NFPA 11

(2) NFPA 12

(3) ~~NFPA 13~~ 55.3.1.1(1)

(4) NFPA 15

(5) NFPA 16

(6) NFPA 17

(7) NFPA 750

(8) NFPA 2001

29.3.5.1.1 General. Industrial occupancies, other than low-hazard industrial occupancies, shall be protected by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) in any of the following locations:

(1) Throughout all industrial occupancies three or more stories in height

(2) Throughout all industrial occupancies exceeding 12,000 ft2 (1115 m2) in fire area

(3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft2 (2230 m2)

29.3.5.1.3 Power-Generation Buildings. In lieu of providing sprinkler protection throughout in accordance with 29.3.5.1, buildings of Type I or Type II construction used exclusively for the enclosure of steam generators, steam turbines, gas turbines, heat recovery generators, and flue gas treatment equipment shall not be required to be sprinklered throughout, provided that the special hazards are protected by approved automatic suppression systems in accordance with NFPA 11, NFPA 12, ~~NFPA 13~~ 55.3.1.1(1), NFPA 15, NFPA 16, NFPA 17, NFPA 750, or NFPA 2001.

Fix Table 30.2.6 in Terra View

30.3.4.1.1 Storage occupancies, other than low-hazard storage occupancies, shall be protected by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) in any of the following locations:

(1) Throughout all storage occupancies three or more stories in height

(2) Throughout all storage occupancies exceeding 12,000 ft2 (1115 m2) in fire area

(3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft2 (2230 m2)

Fix Table 30.7.5.2 in Terra View

Fix Table 30.8.2.6.1 in Terra View

30.8.3.5.1 Automatic sprinkler systems, where required, shall conform to ~~NFPA 13~~ 55.3.1.1(1). Electronic supervision of supervisory signals shall be provided in accordance with 55.3.2.1. Waterflow alarms shall be monitored in accordance with 55.3.2.2.

31.2.3 Where underground structures have an occupant load of more than 50 persons in the underground portions of the structure, the underground portions, and all areas and floor levels traversed in traveling to the exit discharge, shall be protected by an approved, supervised automatic sprinkler system installed in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

31.3.1.3 Limited-access structures shall be protected by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, except for structures meeting any of the following criteria:

(1) Structure with an occupant load of less than 50 persons

(2) One-story limited-access structures permitted to have a single exit in accordance with Chapters 15 through 30 and 33 through 34 and having a common path of travel not exceeding 50 ft (15 m)

31.6.1.3.1 Sprinklered Towers. In towers protected throughout by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), the levels located below the observation level shall be permitted to be occupied only for any of the following uses:

(1) Uses that support tower operations such as electrical and mechanical equipment rooms, including emergency power, radar, communications, and electronics rooms

(2) Incidental accessory uses that support tower operations

31.6.5.2 Towers with 360-degree line-of-sight requirements shall be permitted to have a single means of egress for a distance of travel to the exit not exceeding 75 ft (23 m), or 100 ft (30 m) if the tower is protected throughout by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

32.3.5.2 Enclosed stadiums, arenas, and similar structures shall be protected throughout by an approved, electrically

supervised automatic sprinkler system in accordance with 55.3.2 and ~~NFPA 13~~ 55.3.1.1(1), unless otherwise permitted by the following:

(1) Where the ceiling or roof, whichever is lower, of the playing/activity area is more than 55 ft (16.7 m) above the floor, sprinklers shall not be required above the playing/activity area where permitted by the authority having jurisdiction.

(2) Sprinklers shall not be required above seating areas that view the playing/activity area.

32.3.5.3 An enclosed area shall be protected by an approved sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), unless such an area is one of the following:

(1) Enclosed stadiums, arenas, and similar structures

(2) Press boxes of less than 1000 ft2 (93 m2)

(3) Storage facilities of less than 1000 ft2 (93 m2), if enclosed with minimum 1-hour fire-resistance-rated construction

(4) Enclosed areas underneath grandstands or bleachers that comply with 16.4.10.5

33.3.2.1 High-rise buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), and 55.3.2.

Fix Table 34.1.3.1 Sub note d in Terra View

Fix Table 34.1.3.2.1 Sub note d in Terra View

Fix Table 34.1.3.3.1 Sub note a in Terra View

37.1.3.1 Parapets Not Required. Parapets shall not be required where any of the following conditions exist: (4) Where the entire building is protected by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1)

37.1.4.1 Buildings four or more stories in height above grade plane, which are not protected throughout with a fire sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2), with openings in exterior walls located within a 60 in. (1525 mm) radius of openings in the next story above, shall be separated or protected in accordance with 37.1.4.2.

48.3.2.3 The requirements of 48.3.2.1 and 48.3.2.2 shall not apply where otherwise permitted by the following:

(1) As provided in Section 48.5, the smoke developed index for interior trim shall not be required.

(2) Foam plastic insulation in cold storage buildings, ice plants, food plants, food processing rooms, and similar areas that has been tested in a thickness of 4 in. (100 mm) 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, and exhibits a flame spread index not exceeding 75 and a smoke developed index not exceeding 450, shall be permitted in a thickness of up to 10 in. (255 mm) where that portion of the building and the room are equipped with an automatic fire sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

(3) Foam insulation that is part of a Class A, Class B, or Class C roof covering system, when tested in accordance with ASTM E108, Standard Test Methods for Fire Tests of Roof Coverings, or UL 790, Standard Test Methods for Fire Tests of Roof Coverings, and where the system with the foam plastic insulation passes NFPA 276, or UL 1256, Fire Test of Roof Deck Constructions for roof applications, the foam plastic insulation shall not be required to meet the smoke developed index limits.

(4) Foam plastic insulation

48.3.3.4 The requirements of 48.3.3.1 through 48.3.3.3 shall not apply where otherwise permitted by the following:

(1) The thermal barrier shall not be required in masonry or concrete wall, floor, or roof construction where the foam plastic insulation is covered on each face by concrete or masonry with a minimum 1 in. (25 mm) thickness.

(2) The thermal barrier shall not be required in cooler and freezer walls, provided that all of the following conditions are met:

(1) The foam plastic used in cooler and freezer walls is a maximum thickness of 10 in. (255 mm) and, when tested, is a minimum thickness of 4 in. (100 mm) and has a flame spread index of 25 or less and a smoke developed index of 450 or less.

(2) The flash and self-ignition temperatures of the foam plastic are not less than 600°F (316°C) and 800°F (427°C), respectively, when tested in accordance with ASTM D1929, Standard Test Method for Determining Ignition Temperature of Plastics.

(3) The foam plastic is covered by aluminum not less than 0.032 in. (0.8 mm) thick or corrosion-resistant steel having a base metal thickness not less than 0.016 in. (0.4 mm) at any point.

(4) The cooler or freezer walls are protected by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

(5) The cooler or freezer is within a building, and the cooler or freezer and the part of the building in which it is located are protected by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

(1) The thermal barrier shall not be required in walk-in coolers in unsprinklered buildings, provided that all of the following conditions are met:

(1) The foam plastic insulation is used in thicknesses of 4 in. (100 mm) or less.

(2) The foam plastic insulation has a flame spread of 75 or less.

(3) The aggregate floor area of the walk-in coolers is 400 ft2 (37 m2) or less.

(4) The foam plastic insulation is covered either by aluminum not less than 0.032 in. (0.8 mm) thick or corrosion-resistant steel having a minimum base metal thickness of 0.016 in. (0.4 mm).

(1) The thermal barrier shall not be required on or in exterior walls of one-story buildings where all of the following criteria are met:

(1) The foam plastic insulation meets all of the following requirements:

i. It is 4 in. (100 mm) or less in thickness.

ii. It has a flame spread index of 25 or less.

iii. It has a smoke developed index of 450 or less.

iv. It is covered either by aluminum with a thickness equal to or greater than 0.032 in. (0.8 mm) or corrosion-resistant steel having a base metal thickness greater than 0.016 in. (0.4 mm).

(1) The building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

(1) The thermal barrier shall not be required in roof assemblies where the following criteria are met:

(1) The foam plastic insulation installed in a roof assembly in accordance with this Code and the manufacturer's installation instructions is separated from the interior of the building by wood structural sheathing not less than 0.47 in. (12 mm) in thickness bonded with exterior glue, with edges supported by one of the following:

i. Blocking

ii. Tongue-and-groove joints

iii. Other approved type of edge support

iv. Other equivalent material

(1) The foam plastic insulation is a part of a Class A, Class B, or Class C roof-covering assembly, provided that the assembly with the foam plastic insulation satisfactorily passes either of the following:

(1) FM Approval 4450, Class I Insulated Steel Deck Roofs

(2) UL 1256, Fire Test of Roof Deck Constructions

(1) The thermal barrier shall not be required in attics and crawl spaces if the foam plastic insulation is installed within an attic or crawl space where entry is made only for service of utilities, and the foam plastic insulation is protected against ignition by one of the following:

(1) Mineral fiber insulation of 11⁄2 in. (38 mm) thickness

(2) Wood structural panel, particleboard, or hardboard of 1⁄4 in. (6.4 mm) thickness

(3) Gypsum wallboard of 0.375 in. (9.5 mm) thickness

(4) Corrosion-resistant steel having a base metal thickness of 0.016 in. (0.4 mm)

(5) Other approved material consistent with the requirements of the application and installed so that the foam plastic insulation is not exposed

(1) The thermal barrier shall not be required in doors where the following criteria are met:

(1) Where the foam plastic insulation meeting the requirements of 48.3.2 is used as a core of pivoted or side-hinged

doors that comply with the following:

(1) The doors do not require a fire protection rating.

(2) The door skin is steel having a thickness of at least 0.016 in. (0.4 mm) or aluminum having a thickness of at least 0.032 in. (0.8 mm) at any point.

(1) Where foam-filled exterior entrance doors of residential occupancies comply with the following:

(1) The doors do not require a fire resistance rating.

(2) The doors are faced with wood or other approved materials.

(1) Where the foam plastic insulation is used as core material for garage doors, and the following criteria are met:

(1) No fire resistance rating is required for the assembly.

(2) The door is faced with at least 0.032 in. (0.8 mm) aluminum, 0.010 in. (0.25 mm) steel, or a 0.125 in. (3.1 mm) thickness of wood.

(1) Where garage doors have facings other than those specified in 48.3.3.4(7)(c)(ii) and are tested in accordance with, and meet the acceptance criteria of, ANSI/DASMA 107, Room Fire Test Standard for Garage Doors Using Foam Plastic Insulation.

(2) Where the foam plastic insulation is used as core material for garage doors in one- and two-family dwellings, and the foam plastic insulation complies with 48.3.2.

(1) The thermal barrier shall not be required in conjunction with siding backer board where the following criteria are met:

(1) The foam plastic insulation 1⁄2 in. (13 mm) or less in thickness and having a potential heat of not more than 2000 Btu/ft2 (22.7 MJ/m2) when tested in accordance with NFPA 259, is separated from the interior of the building by a least 2 in. (51 mm) of mineral fiber insulation or equivalent.

(2) The siding and foam plastic insulation are applied over existing siding.

(1) The thermal barrier shall not be required on interior trim where the foam plastic insulation meets the requirements of Section 48.5.

(2) The thermal barrier shall not be required on interior plastic signs in covered mall concourse buildings where used in accordance with Section 48.8.

(3) In Type V construction, foam plastic insulation shall be permitted to be spray-applied to sill plates and headers without requiring a thermal barrier where the foam plastic insulation complies with all of the following criteria:

(1) The maximum thickness of the foam plastic insulation is 31⁄4 in. (82.6 mm).

(2) The density of the foam plastic insulation ranges between 1.5 lb/ft3 to 2.0 lb/ft3 (24 kg/m3 to 32 kg/m3).

(3) The foam plastic insulation has a flame spread index of 25 or less.

(1) The thermal barrier shall not be required where tested in accordance with 48.4.4.

48.7.3.6 Unless the building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), or when the building is equipped with smoke and heat vents, each skylight shall have a maximum area within the curb of 100 ft2 (9 m2).

48.7.3.7.2 The aggregate area limitations of 48.7.3.7.1 shall be permitted to be increased 100 percent where the building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), or where the building is equipped with smoke and heat vents.

48.7.3.8.2 The requirement of 48.7.3.8.1 shall not apply where one of the following conditions is met:

(1) The building shall be equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1)

(2) The skylight shall serve as an approved fire-venting system.

(3) In one- and two-family dwellings, or on buildings with an unclassified roof covering, skylights shall be separated from each other by a distance of not less than 16 in. (405 mm), measured in a horizontal plane, and each skylight shall not exceed a maximum area within the curb of 100 ft2 (9 m2).

48.7.4.2 Where walls and ceilings are required to be fire resistive or of noncombustible or limited-combustible construction, and walls are set out or ceilings are dropped more than 1¾ in. (44 mm), plastic materials with a flame spread index of 25 or less and a smoke developed index of 450 or less shall be used, unless they meet the following criteria:

(1) The plastic materials shall be protected on both sides by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1)

48.7.5.2 Unless an automatic sprinkler system is installed in accordance with ~~NFPA 13~~ 55.3.1.1(1), the area of light diffusers, where used in exitways, exit passages, or corridors, shall not exceed 30 percent of the aggregate area of the ceiling in which they are installed.

48.7.6.6 Where the building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), the maximum percentage area of an exterior wall in any story in light-transmitting plastic wall panels, and the maximum square footage of a single area given in Table 48.7.6.5.1, shall be permitted to be increased by 100 percent provided that the area of light-transmitting plastic wall panels does not exceed 50 percent of the wall area in any story, or the area permitted for unprotected openings, whichever is smaller.

48.7.7.2 Light-transmitting plastic glazing shall be permitted in openings in the exterior walls of buildings of types of construction other than Type V(000), where not required to be protected, in accordance with the following provisions:

(1) The aggregate area of light-transmitting plastic glazing shall not exceed 25 percent of the area of any wall face of the story in which it is installed.

(2) The area of a single pane of glazing installed above the first story shall not exceed 16 ft2 (1.5 m2), and the vertical dimension of a single pane shall not exceed 48 in. (1220 mm).

(3) Where an automatic sprinkler is provided throughout in accordance with ~~NFPA 13~~ 55.3.1.1(1), the aggregate area of glazing permitted by 48.7.7.2(1) shall be permitted to be increased to a maximum of 50 percent of the wall face of the story in which it is installed, with no limit on the maximum dimension or area of a single pane of glazing.

(4) Approved flame barriers extending 30 in. (760 mm) beyond the exterior wall in the plane of the floor, or vertical panels not less than 48 in. (1220 mm) in height, shall be installed between glazed units located in adjacent stories.

(5) Light-transmitting plastics shall not be installed more than 75 ft (23 m) above grade plane.

(6) The requirements of 48.7.7.2(4) and 48.7.7.2(5) shall not apply to buildings equipped throughout with an automatic sprinkler in accordance with ~~NFPA 13~~ 55.3.1.1(1).

48.7.8.1 Except where prohibited, light-transmitting plastics shall be permitted to be used as light-transmitting plastic roof panels where any of the following conditions are met:

(1) The building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1)

(2) The roof construction is not required to have a fire resistance rating.

(3) The light-transmitting plastic roof panels meet the requirements for roof coverings in accordance with Chapter 38.

48.7.8.2.2 The requirement of 48.7.8.2.1 shall not apply where one of the following conditions exists:

(1) The separation between light-transmitting plastic roof panels shall not be required in a building equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1)

(2) The separation between light-transmitting plastic roof panels shall not be required in buildings complying with the conditions of 48.7.8.4.2 and 48.7.8.4.2(3).

48.7.8.4.2 The requirement of 48.7.8.4.1 shall not apply where one of the following conditions exists:

(1) The area limitations of Table 48.7.8.4.1 shall be permitted to be increased by 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1)

55.3.3 Other Supervision. Where electrical supervision is not required by another section of this Code, supervision shall be permitted in accordance with ~~NFPA 13~~ 55.3.1.1(1).

55.4.3 Where standpipe and hose systems are installed in combination with automatic sprinkler systems, installation shall be in accordance with ~~NFPA 13~~ 55.3.1.1(1) and NFPA 14.

Additional Proposed Changes

File Name	Description	Approved
CD074_-_5000_Sprinkler_Reference_Correction.docx	Full language	

Statement of Problem and Substantiation for Public Input

Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

Submitter Information Verification

Submitter Full Name: Andrew Bevis
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Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 01 13:58:53 EDT 2021
Committee: BLD-BSF

Committee Statement

Resolution: FR-8064-NFPA 5000-2021
Statement: The reference of NFPA 13 is replaced with sections within NFPA 101 for consistency with how other codes reference sprinkler standards. Related to FR-8065 and PI-129

CD074: Sprinkler Reference Correction

2021 NFPA 5000

Revise as follows:

7.1.5.2.2.2 Where a one- or two-family dwelling, or townhouse, is protected with an approved automatic sprinkler system that is installed in accordance with ~~NFPA 13D~~ 55.3.1.1(3) or ~~NFPA 13R~~ 55.3.1.1(2), as applicable, the distance in 7.1.5.2.2.1 shall be permitted to be increased to 150 ft (46 m).

7.1.5.2.3.2 When buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with ~~NFPA 13~~ 55.3.1.1(1), ~~NFPA 13R~~ 55.3.1.1(2), or ~~NFPA 13D~~ 55.3.1.1(3), the distance shall be permitted to be increased to 450 ft (137 m).

7.4.1.4.7 * Power-Generation Structures. Structures of Type I or Type II construction used exclusively for the enclosure of steam generators, steam turbines, gas turbines, heat recovery generators, and flue gas treatment equipment shall be permitted to be of unlimited height and area when special hazards are protected by an approved automatic suppression system in accordance with NFPA 11, NFPA 12, ~~NFPA 13~~ 55.3.1.1(1), NFPA 15, NFPA 16, NFPA 17, NFPA 750, or NFPA 2001.

7.6.2.3.4.2 The sum of the allowable area ratios for all stories in buildings protected in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall not be greater than the following:

(1) 1.0 for one-story buildings
(2) 2.0 for two-story buildings
(3) 3.0 for three-story buildings
(4) 4.0 for four-story buildings

8.3.3.11.2.2 Single opening protectives in fire walls shall not be limited in size where the buildings on both sides of the fire wall are protected throughout by automatic sprinkler systems in accordance with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2).

8.12.5.2 Where permitted by Chapters 15 through 31 and 33 through 34, unenclosed vertical openings created by convenience stairways shall be permitted as follows:

(3) The convenience stair openings shall be protected ~~in accordance~~ with the method detailed for the protection of vertical openings in ~~NFPA 13~~ accordance with 55.3.1.1(1).

8.12.6.2 Any escalators and moving walks not constituting an exit, or serving as a required means of egress, shall have their floor openings enclosed or protected as required for other vertical openings, unless permitted by the following:

(2) In buildings protected throughout by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2), escalators or moving walk openings shall be permitted to be protected ~~in accordance~~ with the method detailed in ~~NFPA 13~~ accordance with 55.3.1.1(1) or in accordance with a method approved by the authority having jurisdiction and the opening shall not connect more than four contiguous stories unless otherwise permitted by Chapters 15 through 31 and 33 through 34.

8.12.6.3 In buildings protected throughout by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2), escalators or moving walk openings shall be permitted to be protected by rolling steel shutters appropriate for the fire resistance rating of the vertical opening protected, and the following criteria shall be met:

(1) The shutters shall close automatically and independently of each other upon smoke detection and sprinkler operation.

(2) There shall be a manual means of operating and testing the operation of the shutter.

(3) The shutters shall be operated not less than once a week to ensure that they remain in proper operating condition.

(4) The shutters shall operate at a speed not to exceed 30 ft/min (0.15 m/s) and shall be equipped with a sensitive leading edge.

(5) The leading edge shall arrest the progress of a moving shutter and cause it to retract a distance of approximately 6 in. (150 mm) upon the application of a force not exceeding 20 lbf (90 N) applied to the surface of the leading edge.

(6) The shutter, following the retraction specified in 8.12.6.3(5), shall continue to close.

(7) The operating mechanism for the rolling shutter shall be provided with standby power complying with the provisions of Chapter 52.

8.14.1.2 The requirements of 8.14.1.1 shall not apply where any of the following conditions are met:

(1) Where the space is protected throughout by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

(2) Where concealed spaces serve as plenums

11.13.5.3 The absence of sprinklers in the normally unoccupied building service equipment support area as permitted by an exemption of ~~NFPA 13~~ 55.3.1.1(1), shall not cause a building to be classified as nonsprinklered for purposes of applying the provisions of 11.13.5.2.

15.4.2.9.1(2) The requirements of 15.4.2.9 shall not apply, provided that one of the following criteria is met: (2) Access shall not be required where the space created is protected by an approved sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

15.6.2.5.4.6 The requirement of 15.6.2.5.4 shall not apply to residential occupancies complying with ~~NFPA 13R~~ 55.3.1.1(2) or ~~NFPA 13D~~ 55.3.1.1(3) as appropriate.

16.4.7.6.1 Where required by 16.4.7.5, the proscenium opening shall be a listed, minimum 20-minute opening protective assembly, a fire curtain complying with NFPA 80, or an approved water curtain complying with ~~NFPA 13~~ 55.3.1.1(1).

19.3.5.6 Sprinklers shall not be required in clothes closets of patient sleeping rooms in hospitals where the area of the closet does not exceed 6 ft2 (0.55 m2), provided that the distance from the sprinkler in the patient sleeping room to the back wall of the closet does not exceed the maximum distance permitted by ~~NFPA 13~~ 55.3.1.1(1).

19.3.5.7 Sprinklers in areas where cubicle curtains are in-stalled shall be in accordance with ~~NFPA 13~~ 55.3.1.1(1).

20.2.2.12.2 In buildings protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), and 55.3.2, two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge shall not be required.

20.2.5.2.1 A common path of travel shall be permitted for the first 100 ft (30 m) in a building protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), and 55.3.2.

20.2.5.3.1 In buildings protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), and 55.3.2, dead-end corridors shall not exceed 50 ft (15 m).

21.3.5.2 All buildings classified as Use Condition II, Use Condition III, Use Condition IV, or Use Condition V shall be protected throughout by an approved, electrically supervised automatic sprinkler system installed in accordance with ~~NFPA 13~~ 55.3.1.1(1).

22.3.5.2 Unless otherwise specified in Chapter 7, where modifications are permitted by this Code, based on the installation of an automatic sprinkler system, such modifications shall be permitted where the automatic sprinkler system complies with ~~NFPA 13~~ 55.3.1.1(1), ~~NFPA 13D~~ 55.3.1.1(3), or ~~NFPA 13R~~ 55.3.1.1(2).

22.3.5.3 Where an automatic sprinkler system is provided, either for total or partial building coverage, the system shall be in accordance with ~~NFPA 13~~ 55.3.1.1(1), ~~NFPA 13D~~ 55.3.1.1(3), or ~~NFPA 13R~~ 55.3.1.1(2).

23.3.6.1 Unless otherwise specified in Chapter 7, where modifications are permitted by this Code, based on the installation of an automatic sprinkler system, such modifications shall be permitted when the automatic sprinkler system complies with ~~NFPA 13~~ 55.3.1.1(1), ~~NFPA 13D~~ 55.3.1.1(3), or ~~NFPA 13R~~ 55.3.1.1(2).

23.3.6.2.2 In buildings four or fewer stories in height and not exceeding 60 ft (18.3 m) in height above the grade plane, systems in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall be permitted.

23.3.6.2.3 Systems in accordance with ~~NFPA 13D~~ 55.3.1.1(3) shall be permitted where all of the following requirements are met:

(1) The lodging or rooming house shall not be part of a mixed occupancy.
(2) Entrance foyers shall be sprinklered.
(3) Lodging or rooming houses with sleeping accommodations for more than eight occupants shall be treated as two-family dwellings with regard to the water supply.

23.3.6.2.4 In buildings sprinklered in accordance with ~~NFPA 13~~ 55.3.1.1(1), closets less than 12 ft2 (1.1 m2) in area in individual dwelling units shall not be required to be sprinklered.

23.3.6.2.5 In buildings sprinklered in accordance with ~~NFPA 13~~ 55.3.1.1(1), closets that contain equipment such as washers, dryers, furnaces, or water heaters shall be sprinklered, regardless of size.

24.3.5.1 Unless otherwise specified in Chapter 7, where modifications are permitted by this Code, based on the installation of an automatic sprinkler system, such modifications shall be permitted where the automatic sprinkler system complies with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2).

24.3.5.4 Where an automatic sprinkler system is installed, either for total or partial building coverage, the system shall be in accordance with Section 55.3, as modified by 24.3.5.5. In hotel or dormitory occupancies up to and including four stories in height that are located in buildings not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall be permitted.

24.3.5.6 The provisions for draft stops and closely spaced sprinklers in accordance with ~~NFPA 13~~ 55.3.1.1(1) shall not apply to openings complying with 8.12.5 where the opening is within the guest room or guest suite.

25.3.5.1.2 In apartment buildings up to and including four stories in height that are located in buildings not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall be permitted.

25.3.5.1.3 Unless otherwise specified in Chapter 7, where modifications are permitted by this Code, based on the installation of an automatic sprinkler system, such modifications shall be permitted where the automatic sprinkler system complies with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2).

25.3.5.3 Closets. In buildings sprinklered in accordance with ~~NFPA 13~~ 55.3.1.1(1), closets shall meet the following requirements:

(1) Closets of less than 12 ft2 (1.1 m2) in individual dwelling units shall not be required to be sprinklered.

(2) Closets that contain equipment such as washers, dryers, furnaces, or water heaters shall be sprinklered, regardless of size.

25.3.5.4 Convenience Openings. The draft stop and closely spaced sprinkler requirements that are in accordance with ~~of NFPA 13~~ 55.3.1.1(1) shall not be required for convenience openings complying with 8.12.5 where the convenience opening is within the dwelling unit.

26.2.3.5.2 Where an automatic sprinkler system is installed, for either total or partial building coverage, all of the following requirements shall be met:

(1) The system shall be in accordance with ~~NFPA 13~~ 55.3.1.1(1) and shall initiate the fire alarm system in accordance with 26.2.3.4.1.

(2) The adequacy of the water supply shall be documented to the authority having jurisdiction.

26.2.3.5.2.1 In buildings four or fewer stories in height and not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with ~~NFPA 13R~~ 55.3.1.1(2) shall be permitted. All habitable areas, closets, roofed porches, roofed decks, and roofed balconies shall be sprinklered.

26.2.3.5.2.2 An automatic sprinkler system complying with ~~NFPA 13D~~ 55.3.1.1(3), with a 30-minute water supply, shall be permitted. All habitable areas, closets, roofed porches, roofed decks, and roofed balconies shall be sprinklered. Facilities with more than eight residents shall be treated as two-family dwellings with regard to water supply.

26.2.3.5.2.3 An automatic sprinkler system complying with ~~NFPA 13D~~ 55.3.1.1(3), with a 30-minute water supply, shall be permitted. All habitable areas and closets shall be sprinklered. Facilities with more than eight residents shall be treated as two-family dwellings with regard to water supply.

26.2.3.5.3 Automatic sprinkler systems installed in accordance with ~~NFPA 13~~ 53.3.1.1(1) and ~~NFPA 13R~~ 53.3.1.1(2) shall be provided with electrical supervision in accordance with 55.3.2.

26.2.3.5.4 Automatic sprinkler systems installed in accordance with ~~NFPA 13D~~ 55.3.1.1(3) shall be provided with valve supervision by one of the following methods:

(1) Single, listed control valve that shuts off both domestic and sprinkler systems, and separate shutoff for the domestic system only
(2) Electrical supervision in accordance with 55.3.2
(3) Valve closure that causes the sounding of an audible signal in the facility

26.3.3.5.1 General. All buildings shall be protected throughout by an approved automatic sprinkler system installed in accordance with ~~NFPA 13~~ 55.3.1.1(1) and quick-response or residential sprinklers shall be provided throughout.

27.1.2.2.4 Where a number of tenant spaces under different management are located in the same building, the aggregate gross area for subclassification shall be determined in accordance with any of the following:

(1) Where tenant spaces are not separated, the aggregate gross floor area of all such tenant spaces shall be used in determining classification per 27.1.2.2.1.
(2) Where individual tenant spaces are separated by fire barriers with a 2-hour fire resistance rating, each tenant space shall be individually classified.
(3) Where tenant spaces are separated by fire barriers with a 1-hour fire resistance rating and the building is protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, each tenant space shall be individually classified.
(4) The tenant spaces in a mall structure in accordance with 27.4.4 shall be classified individually.

27.1.3.3.2 Openings in the fire barrier shall not be required to be protected with fire-protection-rated opening protectives in enclosed parking structures that are protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, or in open parking structures, provided that all of the following conditions are met:

(1) The openings do not exceed 25 percent of the area of the fire barrier in which they are located.

(2) The openings are used as a public entrance and for associated sidelight functions.
(3) The buildings containing the mercantile occupancy are protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.
(4) Means are provided to prevent spilled fuel from accumulating adjacent to the openings and entering the building.
(5) Physical means are provided to prevent vehicles from being parked or driven within 10 ft (3050 mm) of the openings.
(6) The openings are protected as required for a smoke partition in accordance with Section 8.10, with no minimum fire protection rating required.

27.2.2.2.6 Sensor-release of electrical locking systems complying with 11.2.1.6.2 shall be permitted in buildings protected throughout by an approved, supervised fire detection system in accordance with Section 55.2 or an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

27.2.2.12.2 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge shall not be required.

27.2.4.4 A single means of egress shall be permitted in a Class C mercantile occupancy, provided that the travel distance to the exit or to a mall concourse does not exceed 100 ft (30 m), and the story on which the occupancy is located and all communicating levels that are traversed to reach the exit or mall concourse are protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

27.2.4.5 A single means of egress to an exit or to a mall concourse shall be permitted from a mezzanine within any Class A, Class B, or Class C mercantile occupancy, provided that the common path of travel does not exceed 75 ft (23 m), or does not exceed 100 ft (30 m) if protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

27.2.5.2 Common Paths of Travel. Common paths of travel shall be limited by any of the following:
(1) They shall not exceed 75 ft (23 m) in mercantile occupancies.
(2) They shall not exceed 100 ft (30 m) in mercantile occupancies where the building is protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

27.2.5.3.1 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, dead-end corridors shall not exceed 50 ft (15 m).

27.2.5.8 Exit Access Through Storerooms. Exit access in Class A and Class B mercantile occupancies that are protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, and exit access in all Class C mercantile occupancies, shall be permitted to pass through storerooms, provided that all of the following conditions are met:
(1) Not more than 50 percent of exit access shall be provided through the storeroom.
(2) The storeroom shall not be subject to locking.
(3) The main aisle through the storeroom shall be not less than 44 in. (1120 mm) wide.
(4) The path of travel through the storeroom shall be defined, direct, and continuously maintained in an unobstructed condition.

27.2.6.2 Travel distance in mercantile occupancies in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2 shall not exceed 250 ft (76 m).

27.3.1 Protection of Vertical Openings. Any vertical opening shall be protected in accordance with Section 8.12, except under any of the following conditions:

(1) In Class A or Class B mercantile occupancies protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2 unprotected vertical openings shall be permitted at one of the following locations:
    (a) Between any two floors
    (b) Among the street floor, the first adjacent floor below, and the adjacent floor (or mezzanine) above
(2) In Class C mercantile occupancies, unprotected openings shall be permitted between the street floor and the mezzanine.
(3) The draft stop and closely spaced sprinkler requirements of ~~NFPA 13~~ 55.3.1.1(1) shall not be required for unenclosed vertical openings permitted in 27.3.1(1) and 27.3.1(2).
(4) Unenclosed vertical openings in accordance with 8.12.5.2 shall be permitted and the provisions of 8.12.5.2(5) shall not apply.
(5) Unenclosed vertical openings in accordance with 8.12.6.2 shall be permitted and the number of contiguous stories shall not be limited.

27.3.2.1.2 In general storage and stock areas protected by an automatic extinguishing system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, an enclosure, if provided, shall be exempt from the provisions of 8.15.2.

27.3.4.2 Initiation. Initiation of the required fire alarm system shall be by any one of the following:

(1) Manual means in accordance with 55.2.2.1
(2) Approved automatic fire detection system in accordance with 55.2.2.1that provides protection throughout the building and the provision of 55.2.2.6 shall apply.
(3) Approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, in accordance with 55.2.2.1 that provides protection throughout the building and the provision of 55.2.2.6 shall apply.

27.3.6.1 Where access to exits is provided by corridors, such corridors shall be separated from use areas by walls having a fire resistance rating of not less than 1 hour in accordance with Section 8.4, unless one of the following conditions exists:

(1) Where exits are available from an open floor area
(2) Within a space occupied by a single tenant
(3) Within buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2

27.4.4.6.9.2 Rooms housing building service equipment, janitor closets, and service elevators shall be permitted to open directly onto exit passageways, provided that all of the following criteria are met:

(1) The required fire resistance rating between such rooms or areas and the exit passageway shall be maintained in accordance with 11.1.3.2.
(2) Such rooms or areas shall be protected by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2; however, the exceptions in ~~NFPA 13~~ 55.3.1.1(1) that permit the omission of sprinklers from such rooms shall not be permitted.
(3) Service elevators opening into the exit passageway shall not open into areas other than exit passageways.
(4) Where exit stair enclosures discharge into the exit passageway, the provisions of 11.2.1.5.9 shall apply, regardless of the number of stories served.

27.4.4.8.1.1 The mall structure and all anchor buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), 55.3.2, and 27.4.4.8.1.

27.4.5.3 Storage, Arrangement, Protection, and Quantities of Hazardous Commodities. The storage, arrangement, protection, and quantities of hazardous commodities shall be in accordance with the applicable provisions of the following:

(1) NFPA 1
(2) ~~NFPA 13~~ 55.3.1.1(1)
(3) NFPA 30
(4) NFPA 30B
(5) NFPA 400, Chapter 14, for organic peroxide formulations
(6) NFPA 400, Chapter 15, for oxidizer solids and liquids
(7) NFPA 400, various chapters, depending on characteristics of a particular pesticide

27.4.5.5 Extinguishment Requirements. Bulk merchandising retail buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2 and the applicable provisions of the following:

(1) NFPA 1
~~(2) NFPA 13~~
(3) NFPA 30
(4) NFPA 30B

28.2.4.5 A single means of egress shall be permitted from a mezzanine within a business occupancy, provided that the common path of travel does not exceed 75 ft (23 m), or 100 ft (30 m) if protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

28.2.4.6 A single means of egress shall be permitted for a maximum two-story, single-tenant space provided that both of the following criteria are met:

(1) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.
(2) The total travel to the outside does not exceed 100 ft (30 m).

28.2.5.2.1 Common path of travel shall not exceed 100 ft (30 m) in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

28.2.5.3.1 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, dead-end corridors shall not exceed 50 ft (15 m).

28.2.6.3 Travel distance shall not exceed 300 ft (91 m) in business occupancies protected throughout by an approved, supervised, automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

28.3.4.2 Initiation. Initiation of the required fire alarm system shall be by any one of the following:

(1) Manual means in accordance with 55.2.2.1

(2) Approved automatic fire detection system in accordance with 55.2.2.1 that provides protection throughout the building and the provision of 55.2.2.6 shall apply.

(3) Approved, supervised automatic sprinkler system complying with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2 in accordance with 55.2.2.1 that provides protection throughout the building and the provision of 55.2.2.6 shall apply.

28.3.6.1 Where access to exits is provided by corridors, such corridors shall be separated from use areas by fire barriers in accordance with Section 8.4 having a minimum 1-hour fire resistance rating, unless one of the following conditions exists:

(1) Where exits are available from an open floor area
(2) Within a space occupied by a single tenant
(3) Within buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2

29.2.6.2 Power-Generation Buildings. Buildings of Type I or Type II construction used exclusively for the enclosure of steam generators, steam turbines, gas turbines, heat recovery generators, and flue gas treatment equipment shall be permitted to have a maximum travel distance of 400 ft (122 m) where all special hazards are protected by approved automatic suppression systems in accordance with one or more of the following standards, as applicable:

(1) NFPA 11
(2) NFPA 12
(3) ~~NFPA 13~~ 55.3.1.1(1)
(4) NFPA 15
(5) NFPA 16
(6) NFPA 17
(7) NFPA 750
(8) NFPA 2001

29.3.5.1.1 General. Industrial occupancies, other than low-hazard industrial occupancies, shall be protected by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) in any of the following locations:

(1) Throughout all industrial occupancies three or more stories in height
(2) Throughout all industrial occupancies exceeding 12,000 ft2 (1115 m2) in fire area
(3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft2 (2230 m2)

29.3.5.1.3 Power-Generation Buildings. In lieu of providing sprinkler protection throughout in accordance with 29.3.5.1, buildings of Type I or Type II construction used exclusively for the enclosure of steam generators, steam turbines, gas turbines, heat recovery generators, and flue gas treatment equipment shall not be required to be sprinklered throughout, provided that the special hazards are protected by approved automatic suppression systems in accordance with NFPA 11, NFPA 12, ~~NFPA 13~~ 55.3.1.1(1), NFPA 15, NFPA 16, NFPA 17, NFPA 750, or NFPA 2001.

30.3.4.1.1 Storage occupancies, other than low-hazard storage occupancies, shall be protected by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) in any of the following locations:

(1) Throughout all storage occupancies three or more stories in height
(2) Throughout all storage occupancies exceeding 12,000 ft2 (1115 m2) in fire area
(3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft2 (2230 m2)

30.8.3.5.1 Automatic sprinkler systems, where required, shall conform to ~~NFPA 13~~ 55.3.1.1(1). Electronic supervision of supervisory signals shall be provided in accordance with 55.3.2.1. Waterflow alarms shall be monitored in accordance with 55.3.2.2.

31.2.3 Where underground structures have an occupant load of more than 50 persons in the underground portions of the structure, the underground portions, and all areas and floor levels traversed in traveling to the exit discharge, shall be protected by an approved, supervised automatic sprinkler system installed in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2.

31.3.1.3 Limited-access structures shall be protected by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2, except for structures meeting any of the following criteria:

(1) Structure with an occupant load of less than 50 persons
(2) One-story limited-access structures permitted to have a single exit in accordance with Chapters 15 through 30 and 33 through 34 and having a common path of travel not exceeding 50 ft (15 m)

31.6.1.3.1 Sprinklered Towers. In towers protected throughout by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), the levels located below the observation level shall be permitted to be occupied only for any of the following uses:

(1) Uses that support tower operations such as electrical and mechanical equipment rooms, including emergency power, radar, communications, and electronics rooms
(2) Incidental accessory uses that support tower operations

31.6.5.2 Towers with 360-degree line-of-sight requirements shall be permitted to have a single means of egress for a distance of travel to the exit not exceeding 75 ft (23 m), or 100 ft (30 m) if the tower is protected throughout by an approved automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

32.3.5.2 Enclosed stadiums, arenas, and similar structures shall be protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with 55.3.2 and ~~NFPA 13~~ 55.3.1.1(1), unless otherwise permitted by the following:

(1) Where the ceiling or roof, whichever is lower, of the playing/activity area is more than 55 ft (16.7 m) above the floor, sprinklers shall not be required above the playing/activity area where permitted by the authority having jurisdiction.
(2) Sprinklers shall not be required above seating areas that view the playing/activity area.

32.3.5.3 An enclosed area shall be protected by an approved sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), unless such an area is one of the following:

(1) Enclosed stadiums, arenas, and similar structures
(2) Press boxes of less than 1000 ft2 (93 m2)
(3) Storage facilities of less than 1000 ft2 (93 m2), if enclosed with minimum 1-hour fire-resistance-rated construction
(4) Enclosed areas underneath grandstands or bleachers that comply with 16.4.10.5

33.3.2.1 High-rise buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), and 55.3.2.

37.1.3.1 Parapets Not Required. Parapets shall not be required where any of the following conditions exist: (4) Where the entire building is protected by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1)

37.1.4.1 Buildings four or more stories in height above grade plane, which are not protected throughout with a fire sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) or ~~NFPA 13R~~ 55.3.1.1(2), with openings in exterior walls located within a 60 in. (1525 mm) radius of openings in the next story above, shall be separated or protected in accordance with 37.1.4.2.

48.3.2.3 The requirements of 48.3.2.1 and 48.3.2.2 shall not apply where otherwise permitted by the following:

(1) As provided in Section 48.5, the smoke developed index for interior trim shall not be required.
(2) Foam plastic insulation in cold storage buildings, ice plants, food plants, food processing rooms, and similar areas that has been tested in a thickness of 4 in. (100 mm) 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, and exhibits a flame spread index not exceeding 75 and a smoke developed index not exceeding 450, shall be permitted in a thickness of up to 10 in. (255 mm) where that portion of the building and the room are equipped with an automatic fire sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).
(3) Foam insulation that is part of a Class A, Class B, or Class C roof covering system, when tested in accordance with ASTM E108, Standard Test Methods for Fire Tests of Roof Coverings, or UL 790, Standard Test Methods for Fire Tests of Roof Coverings, and where the system with the foam plastic insulation passes NFPA 276, or UL 1256, Fire Test of Roof Deck Constructions for roof applications, the foam plastic insulation shall not be required to meet the smoke developed index limits.
(4) Foam plastic insulation

48.3.3.4 The requirements of 48.3.3.1 through 48.3.3.3 shall not apply where otherwise permitted by the following:

(1) The thermal barrier shall not be required in masonry or concrete wall, floor, or roof construction where the foam plastic insulation is covered on each face by concrete or masonry with a minimum 1 in. (25 mm) thickness.

(2) The thermal barrier shall not be required in cooler and freezer walls, provided that all of the following conditions are met:
   (a) The foam plastic used in cooler and freezer walls is a maximum thickness of 10 in. (255 mm) and, when tested, is a minimum thickness of 4 in. (100 mm) and has a flame spread index of 25 or less and a smoke developed index of 450 or less.
   (b) The flash and self-ignition temperatures of the foam plastic are not less than 600°F (316°C) and 800°F (427°C), respectively, when tested in accordance with ASTM D1929, Standard Test Method for Determining Ignition Temperature of Plastics.
   (c) The foam plastic is covered by aluminum not less than 0.032 in. (0.8 mm) thick or corrosion-resistant steel having a base metal thickness not less than 0.016 in. (0.4 mm) at any point.
   (d) The cooler or freezer walls are protected by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).
   (e) The cooler or freezer is within a building, and the cooler or freezer and the part of the building in which it is located are protected by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

(3) The thermal barrier shall not be required in walk-in coolers in unsprinklered buildings, provided that all of the following conditions are met:
   (a) The foam plastic insulation is used in thicknesses of 4 in. (100 mm) or less.
   (b) The foam plastic insulation has a flame spread of 75 or less.
   (c) The aggregate floor area of the walk-in coolers is 400 ft2 (37 m2) or less.
   (d) The foam plastic insulation is covered either by aluminum not less than 0.032 in. (0.8 mm) thick or corrosion-resistant steel having a minimum base metal thickness of 0.016 in. (0.4 mm).

(4) The thermal barrier shall not be required on or in exterior walls of one-story buildings where all of the following criteria are met:
   (a) The foam plastic insulation meets all of the following requirements:
      i. It is 4 in. (100 mm) or less in thickness.
      ii. It has a flame spread index of 25 or less.
      iii. It has a smoke developed index of 450 or less.
      iv. It is covered either by aluminum with a thickness equal to or greater than 0.032 in. (0.8 mm) or corrosion-resistant steel having a base metal thickness greater than 0.016 in. (0.4 mm).
   (b) The building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

(5) The thermal barrier shall not be required in roof assemblies where the following criteria are met:
   (a) The foam plastic insulation installed in a roof assembly in accordance with this Code and the manufacturer's installation instructions is separated from the interior of the building by wood structural sheathing not less than 0.47 in. (12 mm) in thickness bonded with exterior glue, with edges supported by one of the following:
      i. Blocking

ii. Tongue-and-groove joints
iii. Other approved type of edge support
iv. Other equivalent material

(b) The foam plastic insulation is a part of a Class A, Class B, or Class C roof-covering assembly, provided that the assembly with the foam plastic insulation satisfactorily passes either of the following:
i. FM Approval 4450, Class I Insulated Steel Deck Roofs
ii. UL 1256, Fire Test of Roof Deck Constructions

(6) The thermal barrier shall not be required in attics and crawl spaces if the foam plastic insulation is installed within an attic or crawl space where entry is made only for service of utilities, and the foam plastic insulation is protected against ignition by one of the following:
(a) Mineral fiber insulation of 1⁄2 in. (38 mm) thickness
(b) Wood structural panel, particleboard, or hardboard of 1⁄4 in. (6.4 mm) thickness
(c) Gypsum wallboard of 0.375 in. (9.5 mm) thickness
(d) Corrosion-resistant steel having a base metal thickness of 0.016 in. (0.4 mm)
(e) Other approved material consistent with the requirements of the application and installed so that the foam plastic insulation is not exposed

(7) The thermal barrier shall not be required in doors where the following criteria are met:
(a) Where the foam plastic insulation meeting the requirements of 48.3.2 is used as a core of pivoted or side-hinged doors that comply with the following:
i. The doors do not require a fire protection rating.
ii. The door skin is steel having a thickness of at least 0.016 in. (0.4 mm) or aluminum having a thickness of at least 0.032 in. (0.8 mm) at any point.
(b) Where foam-filled exterior entrance doors of residential occupancies comply with the following:
i. The doors do not require a fire resistance rating.
ii. The doors are faced with wood or other approved materials.
(c) Where the foam plastic insulation is used as core material for garage doors, and the following criteria are met:
i. No fire resistance rating is required for the assembly.
ii. The door is faced with at least 0.032 in. (0.8 mm) aluminum, 0.010 in. (0.25 mm) steel, or a 0.125 in. (3.1 mm) thickness of wood.
(d) Where garage doors have facings other than those specified in 48.3.3.4(7)(c)(ii) and are tested in accordance with, and meet the acceptance criteria of, ANSI/DASMA 107, Room Fire Test Standard for Garage Doors Using Foam Plastic Insulation.
(e) Where the foam plastic insulation is used as core material for garage doors in one- and two-family dwellings, and the foam plastic insulation complies with 48.3.2.

(8) The thermal barrier shall not be required in conjunction with siding backer board where the following criteria are met:
(a) The foam plastic insulation 1⁄2 in. (13 mm) or less in thickness and having a potential heat of not more than 2000 Btu/ft2 (22.7 MJ/m2) when tested in accordance with NFPA 259, is separated from the interior of the building by a least 2 in. (51 mm) of mineral fiber insulation or equivalent.
(b) The siding and foam plastic insulation are applied over existing siding.

(9) The thermal barrier shall not be required on interior trim where the foam plastic insulation meets the requirements of Section 48.5.

(10) The thermal barrier shall not be required on interior plastic signs in covered mall concourse buildings where used in accordance with Section 48.8.
(11) In Type V construction, foam plastic insulation shall be permitted to be spray-applied to sill plates and headers without requiring a thermal barrier where the foam plastic insulation complies with all of the following criteria:
  (a) The maximum thickness of the foam plastic insulation is 31⁄ 4 in. (82.6 mm).
  (b) The density of the foam plastic insulation ranges between 1.5 lb/ft3 to 2.0 lb/ft3 (24 kg/m3 to 32 kg/m3).
  (c) The foam plastic insulation has a flame spread index of 25 or less.
(12) The thermal barrier shall not be required where tested in accordance with 48.4.4.

48.7.3.6 Unless the building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), or when the building is equipped with smoke and heat vents, each skylight shall have a maximum area within the curb of 100 ft2 (9 m2).

48.7.3.7.2 The aggregate area limitations of 48.7.3.7.1 shall be permitted to be increased 100 percent where the building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), or where the building is equipped with smoke and heat vents.

48.7.3.8.2 The requirement of 48.7.3.8.1 shall not apply where one of the following conditions is met:

(1) The building shall be equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).
(2) The skylight shall serve as an approved fire-venting system.
(3) In one- and two-family dwellings, or on buildings with an unclassified roof covering, skylights shall be separated from each other by a distance of not less than 16 in. (405 mm), measured in a horizontal plane, and each skylight shall not exceed a maximum area within the curb of 100 ft2 (9 m2).

48.7.4.2 Where walls and ceilings are required to be fire resistive or of noncombustible or limited-combustible construction, and walls are set out or ceilings are dropped more than 1¾ in. (44 mm), plastic materials with a flame spread index of 25 or less and a smoke developed index of 450 or less shall be used, unless they meet the following criteria:

(1) The plastic materials shall be protected on both sides by an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

48.7.5.2 Unless an automatic sprinkler system is installed in accordance with ~~NFPA 13~~ 55.3.1.1(1), the area of light diffusers, where used in exitways, exit passages, or corridors, shall not exceed 30 percent of the aggregate area of the ceiling in which they are installed.

48.7.6.6 Where the building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1), the maximum percentage area of an exterior wall in any story in light-transmitting plastic wall panels, and the maximum square footage of a single area given in Table 48.7.6.5.1, shall be permitted to be increased by 100 percent provided that the area of light-transmitting plastic wall panels does not exceed 50 percent of the wall area in any story, or the area permitted for unprotected openings, whichever is smaller.

48.7.7.2 Light-transmitting plastic glazing shall be permitted in openings in the exterior walls of buildings of types of construction other than Type V(000), where not required to be protected, in accordance with the following provisions:

(1) The aggregate area of light-transmitting plastic glazing shall not exceed 25 percent of the area of any wall face of the story in which it is installed.
(2) The area of a single pane of glazing installed above the first story shall not exceed 16 ft2 (1.5 m2), and the vertical dimension of a single pane shall not exceed 48 in. (1220 mm).
(3) Where an automatic sprinkler is provided throughout in accordance with ~~NFPA 13~~ 55.3.1.1(1), the aggregate area of glazing permitted by 48.7.7.2(1) shall be permitted to be increased to a maximum of 50 percent of the wall face of the story in which it is installed, with no limit on the maximum dimension or area of a single pane of glazing.
(4) Approved flame barriers extending 30 in. (760 mm) beyond the exterior wall in the plane of the floor, or vertical panels not less than 48 in. (1220 mm) in height, shall be installed between glazed units located in adjacent stories.
(5) Light-transmitting plastics shall not be installed more than 75 ft (23 m) above grade plane.
(6) The requirements of 48.7.7.2(4) and 48.7.7.2(5) shall not apply to buildings equipped throughout with an automatic sprinkler in accordance with ~~NFPA 13~~ 55.3.1.1(1).

48.7.8.1 Except where prohibited, light-transmitting plastics shall be permitted to be used as light-transmitting plastic roof panels where any of the following conditions are met:

(1) The building is equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).
(2) The roof construction is not required to have a fire resistance rating.
(3) The light-transmitting plastic roof panels meet the requirements for roof coverings in accordance with Chapter 38.

48.7.8.2.2 The requirement of 48.7.8.2.1 shall not apply where one of the following conditions exists:

(1) The separation between light-transmitting plastic roof panels shall not be required in a building equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).
(2) The separation between light-transmitting plastic roof panels shall not be required in buildings complying with the conditions of 48.7.8.4.2(2) and 48.7.8.4.2(3).

48.7.8.4.2 The requirement of 48.7.8.4.1 shall not apply where one of the following conditions exists:

(1) The area limitations of Table 48.7.8.4.1 shall be permitted to be increased by 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1).

55.3.3 Other Supervision. Where electrical supervision is not required by another section of this Code, supervision shall be permitted in accordance with ~~NFPA 13~~ 55.3.1.1(1).

55.4.3 Where standpipe and hose systems are installed in combination with automatic sprinkler systems, installation shall be in accordance with ~~NFPA 13~~ 55.3.1.1(1) and NFPA 14.

Reason: Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

Public Input No. 109-NFPA 5000-2021 [Section No. 2.1]

2.1 General.

The documents referenced in this chapter, or portions of such documents, are referenced within this *Code* and shall be considered part of the requirements of this *Code*, and the following shall also apply:

(1)* Documents referenced in this chapter, or portion of such documents, shall only be applicable to the extent called for within other chapters of this *Code*.

(2) Where the requirements of a referenced code or standard differ from the requirements of this *Code*, the requirements of this *Code* shall govern.

(3)* Existing buildings or installations that do not comply with the provisions of the codes or standards referenced in this chapter shall be permitted to be continued in service, provided that the lack of conformity with these documents does not present a serious hazard to the occupants as determined by the authority having jurisdiction.

Statement of Problem and Substantiation for Public Input

This proposal is to update all steel industry standards referenced in Chapter 2 to the latest editions including:
AISC 341, 358, 360, 370 (new)
AISI S100, S220, S230, S240, S400
NAAMM FP 1001
RMI MH16.1, MH 16.3
SDI C, NC, QA/QC, RD
SJI 100, 200

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Committee: BLD-FUN

Committee Statement

Resolution: CI-8043-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 68-NFPA 5000-2021 [Section No. 2.3.5]

2.3.5 ANSI Publications.

American National Standards Institute, Inc., 25 West 43rd Street, 4th floor, New York, NY 10036.

ANSI ASC A14.3, *American National Standards for Ladders — Fixed — Safety Requirements*, 2008.

ANSI A190.1, *Standard for Wood Products — Structural Glued Laminated Timber*, 2017.

ANSI A208.1, *Standard for Particleboard*, 2016.

ANSI Z97.1, *For Safety Glazing Materials Used in Buildings — Safety Performance Specifications and Methods of Test*, 2015.

ANSI/NSPI-1, *Standard for Public Swimming Pools*, 2003.

ANSI/NSPI-2, *Standard for Public Spas*, 1999.

ANSI/NSPI-3, *Standard for Permanently Installed Residential Spas*, 1999.

ANSI/NSPI-4, *Standard for Aboveground/Onground Residential Swimming Pools*, 1999.

ANSI/NSPI-5, *Standard for Residential Inground Swimming Pools*, 2003.

ANSI/NSPI-6, *Standard for Residential Portable Spas*, 1999.

ANSI/NSPI-8, *Model Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs*, 1996.

ANSI/APA PRG 320, *Standard for Performance-Rated Cross-Laminated Timber*.

~~ANSI/RESNA ED-1, *Emergency Stair Travel Devices Used by Individuals with Disabilities* , 2019.~~

Statement of Problem and Substantiation for Public Input

Proposing that the referenced standard be moved to a RESNA section of Chapter 2, matching the format of NFPA 101, Chapter 2. This will help code officials find contact information on the standard more efficiently.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 107-NFPA 5000-2021 [New Section after 2.3.28]	

Submitter Information Verification

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Committee:	BLD-FUN

Committee Statement

Resolution: CI-8043-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the

most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 78-NFPA 5000-2021 [Section No. 2.3.8]

2.3.8 ASME Publications.

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

ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators*, ~~2016~~ 2020 .

ASME A17.7/CSA B44.7, *Performance-Based Safety Code for Elevators and Escalators*, 2007, reaffirmed 2017.

ASME A18.1, *Safety Standard for Platform Lifts and Stairway Chairlifts*, ~~2017~~ 2020 .

ASME B20.1, *Safety Standard for Conveyors and Related Equipment*, 2018.

ASME B31.3, *Process Piping*, 2016.

Statement of Problem and Substantiation for Public Input

Update referenced standards to latest edition in publication at the time of publication of NFPA 5000 - 2024.

Submitter Information Verification

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Committee Statement

Resolution: CI-8043-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 23-NFPA 5000-2021 [Section No. 2.3.10]

2.3.10 ASTM Publications.

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

ASTM A6/A6M, *Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling*, 2017a.

ASTM A36/A36M, *Standard Specification for Carbon Structural Steel*, 2014.

ASTM A153/A153M, *Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware*, 2016a.

ASTM A252, *Standard Specification for Welded and Seamless Steel Pipe Piles*, 2010.

ASTM A283/A283M, *Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates,* 2018.

ASTM A463/A463M, *Standard Specification for Steel Sheet, Aluminum-Coated, by the Hot-Dip Process,* 2015.

ASTM A572/A572M, *Standard Specification for High-strength Low-alloy Columbium-vanadium Structural Steel*, 2018.

ASTM A588/A588M, *Standard Specification for High-strength Low-alloy Structural Steel up to 50 ksi (345 MPa) Minimum Yield Point, with Atmospheric Corrosion Resistance*, 2015.

ASTM A653/A653M, *Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process*, 2018.

ASTM A690/A690M, *Standard Specification for High-strength Low-alloy Nickel, Copper, Phosphorus Steel H-piles and Sheet Piling with Atmospheric Corrosion Resistance for Use in Marine Environments*, 2013a (2018).

ASTM A755/A755M, *Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products*, 2018.

ASTM A792/A792M, *Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process*, 2010 (2015).

ASTM A875/A875M, *Standard Specification for Steel Sheet, Zinc-5% Aluminum Alloy-Coated by the Hot-Dip Process*, 2013.

ASTM A924/A924M, *Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process,* 2018.

ASTM B101, *Standard Specification for Lead-Coated Copper Sheet and Strip for Building Construction*, 2012.

ASTM B209, *Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate,* 2014.

ASTM C28/C28M, *Standard Specification for Gypsum Plasters*, 2010(2015).

ASTM C35, *Standard Specification for Inorganic Aggregates for Use in Gypsum Plaster*, 2001 (2014).

ASTM C59/C59M, *Standard Specification for Gypsum Casting Plaster and Gypsum Molding Plaster*, 2000 (2015).

ASTM C61/C61M, *Standard Specification for Gypsum Keene's Cement*, 2000 (2015).

ASTM C90, *Standard Specification for Loadbearing Concrete Masonry Units*, 2016a.

ASTM C91/C91M, *Standard Specification for Masonry Cement*, 2012.

ASTM C150/C150M, *Standard Specification for Portland Cement*, 2019a.

ASTM C206, *Standard Specification for Finishing Hydrated Lime*, 2014.

ASTM C208, *Standard Specification for Cellulosic Fiber Insulating Board*, 2012 (2017 e1).

ASTM C317/C317M, *Standard Specification for Gypsum Concrete,* 2000 (2015).

ASTM C406/C406M, *Standard Specification for Roofing Slate*, 2015.

ASTM C472, *Standard Test Methods for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete,* 1999 (2014).

ASTM C475/C475M, *Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board*, 2017.

ASTM C476, *Standard Specification for Grout for Masonry*, 2018.

ASTM C514, *Standard Specification for Nails for the Application of Gypsum Board*, 2004 (2014).

ASTM C552, *Standard Specification for Cellular Glass Thermal Insulation*, 2017 e1.

ASTM C557, *Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing*, 2003 (2017).

ASTM C578, *Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation*, 2018.

ASTM C587, *Standard Specification for Gypsum Veneer Plaster*, 2004 (2018).

ASTM C588/C588M, *Standard Specification for Gypsum Base for Veneer Plasters*, 2003 e1 (superseded by ASTM C1396/C1396M).

ASTM C591, *Standard Specification for Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation*, 2019.

ASTM C595/C595M, *Standard Specification for Blended Hydraulic Cements*, 2019.

ASTM C631, *Standard Specification for Bonding Compounds for Interior Gypsum Plastering,* 2009 (2014).

ASTM C726, *Standard Specification for Mineral Fiber Roof Insulation Board*, 2017.

ASTM C728, *Standard Specification for Perlite Thermal Insulation Board*, 2017a.

ASTM C836/C836M, *Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course*, 2018.

ASTM C840, *Standard Specification for Application and Finishing of Gypsum Board*, 2018b.

ASTM C841, *Standard Specification for Installation of Interior Lathing and Furring,* 2003 (2018).

ASTM C842, *Standard Specification for Application of Interior Gypsum Plaster*, 2005 (2015).

ASTM C843, *Standard Specification for Application of Gypsum Veneer Plaster*, 2017.

ASTM C844, *Standard Specification for Application of Gypsum Base to Receive Gypsum Veneer Plaster*, 2015.

ASTM C847, *Standard Specification for Metal Lath,* 2018.

ASTM C887, *Standard Specification for Packaged, Dry, Combined Materials for Surface Bonding Mortar*, 2013.

ASTM C897, *Standard Specification for Aggregate for Job-Mixed Portland Cement-Based Plasters*, 2015.

ASTM C920, *Standard Specification for Elastomeric Joint Sealants*, 2018.

ASTM C926, *Standard Specification for Application of Portland Cement-Based Plaster*, 2019.

ASTM C932, *Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering,* 2006 (2019).

ASTM C933, *Standard Specification for Welded Wire Lath,* 2018.

ASTM C946, *Standard Practice for Construction of Dry-Stacked, Surface-Bonded Walls,*2018.

ASTM C954, *Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness*, 2018.

ASTM C956, *Standard Specification for Installation of Cast-in-Place Reinforced Gypsum Concrete*, 2004 (2015).

ASTM C957/C957M, *Standard Specification for High-Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane with Integral Wearing Surface*, 2017.

ASTM C1002, *Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs*, 2018.

ASTM C1029, *Standard Specification for Spray-Applied Rigid Cellular Polyurethane Thermal Insulation*, 2015.

ASTM C1032, *Standard Specification for Woven Wire Plaster Base*, 2018.

ASTM C1047, *Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base*, 2014a.

ASTM C1063, *Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster*, 2019a.

ASTM C1167, *Standard Specification for Clay Roof Tiles*, 2011 (2017).

ASTM C1177/C1177M, *Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing*, 2017.

ASTM C1178/C1178M, *Standard Specification for Glass Mat Water-Resistant Gypsum Backing Panel*, 2018.

ASTM C1278/C1278M, *Standard Specification for Fiber-Reinforced Gypsum Panel*, 2017.

ASTM C1280, *Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing*, 2018.

ASTM C1289, *Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board*,

2018a.

ASTM C1328/C1328M, *Standard Specification for Plastic (Stucco) Cement*, 2012.

ASTM C1396/C1396M, *Standard Specification for Gypsum Board*, 2017.

ASTM C1491, *Standard Specification for Concrete Roof Pavers*, 2018.

ASTM C1492, *Standard Specification for Concrete Roof Tile,* 2003 (2016).

ASTM C1629/C1629M, *Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels*, 2018a.

ASTM D25, *Standard Specification for Round Timber Piles,* 2012 (2017).

ASTM D41/D41M, *Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing*, 2011 (2016).

ASTM D43/D43M, *Standard Specification for Coal Tar Primer Used in Roofing, Dampproofing, and Waterproofing,* 2000 (2018).

ASTM D226/D226M, *Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing*, 2017.

ASTM D227/D227M, *Standard Specification for Coal-Tar-Saturated Organic Felt Used in Roofing and Waterproofing*, 2003 (2018).

ASTM D312/312M, *Standard Specification for Asphalt Used in Roofing*, 2016a.

ASTM D450/D450M, *Standard Specification for Coal-Tar Pitch Used in Roofing, Dampproofing, and Waterproofing*, 2007 (2018).

ASTM D635, *Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position*, 2018.

ASTM D1079, *Standard Terminology Relating to Roofing and Waterproofing*, 2018 e1.

ASTM D1143/D1143M, *Standard Test Methods for Deep Foundations Under Static Axial Compressive Load*, 2007 (2013)e1.

ASTM D1227, *Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing*, 2013.

ASTM D1761, *Standard Test Methods for Mechanical Fasteners in Wood,* 2012.

ASTM D1863/D1863M, *Standard Specification for Mineral Aggregate Used on Built-Up Roofs*, 2005 (2018).

ASTM D1929, *Standard Test Method for Determining Ignition Temperature of Plastics*, ~~2016~~ 2020 .

ASTM D1970/D1970M, *Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection*, 2018.

ASTM D2178/D2178M, *Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing*, 2015a.

ASTM D2487, *Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System),* 2017.

ASTM D2626/D2626M, *Standard Specification for Asphalt-Saturated and Coated Organic Felt Base Sheet Used in Roofing*, 2004 (2012)e1.

ASTM D2843, *Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics*, ~~2016~~ 2019 .

ASTM D2859, *Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials*, 2016 (2021) .

ASTM D2898, *Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing*, 2010 (2017).

ASTM D3019, *Standard Specification for Lap Cement Used with Asphalt Roll Roofing, Non Fibered, and Fibered*, 2017.

ASTM D3161/D3161M, *Standard Test Method for Wind-Resistance of Steep Slope Roofing Products (Fan-Induced Method)*, 2019.

ASTM D3201/D3201M, *Standard Test Method for Hygroscopic Properties of Fire-Retardant Wood and Wood-Based Products*, ~~2013~~ 2020 .

ASTM D3462/D3462M, *Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules*, 2019.

ASTM D3468/D3468M, *Standard Specification for Liquid-Applied Neoprene and Chlorosulfonated Polyethylene Used in Roofing and Waterproofing*, 1999 (2013)e1.

ASTM D3737, *Standard Practice for Establishing Allowable Properties for Structural Glued Laminated Timber (Glulam)*, 2018 e1.

ASTM D3746, *Standard Test Method for Impact Resistance of Bituminous Roofing Systems*, 1985 (2015)e1.

ASTM D3909/D3909M, *Standard Specification for Asphalt Roll Roofing (Glass Felt) Surfaced with Mineral Granules*, 2014.

ASTM D4022/D4022M RL, *Standard Specification for Coal Tar Roof Cement, Asbestos Containing*, 2007 (2012)e1 (withdrawn 2014).

ASTM D4318, *Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils*, 2017e1.

ASTM D4434/D4434M, *Standard Specification for Poly (Vinyl Chloride) Sheet Roofing*, 2015.

ASTM D4479/D4479M, *Standard Specification for Asphalt Roof Coatings — Asbestos-Free*, 2007, (2018).

ASTM D4586/D4586M, *Standard Specification for Asphalt Roof Cement, Asbestos-Free*, 2007 (2018).

ASTM D4601/D4601M, *Standard Specification for Asphalt-Coated Glass Fiber Base Sheet Used in Roofing*, 2004 (2012)e1.

ASTM D4637/D4637M, *Standard Specification for EPDM Sheet Used in a Single-Ply Roof Membrane*, 2015.

ASTM D4869/D4869M, *Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing,*2016a.

ASTM D4897/D4897M, *Standard Specification for Asphalt-Coated Glass-Fiber Venting Base Sheet Used in Roofing*, 2016.

ASTM D4990, *Standard Specification for Coal Tar Glass Felt Used in Roofing and Waterproofing*, 1997a (2013).

ASTM D5055, *Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists*, 2019.

ASTM D5456, *Standard Specification for Evaluation of Structural Composite Lumber Products*, 2019.

ASTM D5516, *Standard Test Method for Evaluating the Flexural Properties of Fire-Retardant Treated Softwood Plywood Exposed to Elevated Temperatures*, 2018.

ASTM D5643, *Standard Specification for Coal Tar Roof Cement, Asbestos Free*, 2006 (2018).

ASTM D5664, *Standard Test Method for Evaluating the Effects of Fire-Retardant Treatments and Elevated Temperatures on Strength Properties of Fire-Retardant Treated Lumber*, 2017.

ASTM D5665/D5665M, *Standard Specification for Thermoplastic Fabrics Used in Cold-Applied Roofing and Waterproofing*, 1999a (2014)e1.

ASTM D5726, *Standard Specification for Thermoplastic Fabrics Used in Hot-Applied Roofing and Waterproofing*, 1998 (2013).

ASTM D6083, *Standard Specification for Liquid Applied Acrylic Coating Used in Roofing*, 2005e1 (withdrawn 2014).

ASTM D6162/D6161M, *Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements,* 2016.

ASTM D6163/D6163M, *Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements,* 2016.

ASTM D6164/D6164M, *Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Polyester Reinforcements,* 2016.

ASTM D6222/D6222M, *Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Sheet Materials Using Polyester Reinforcements,* 2016.

ASTM D6223/D6223M, *Standard Specification for Atactic Polypropylene (APP) Modified Bituminous Sheet Materials Using a Combination of Polyester and Glass Fiber Reinforcements,* 2016.

ASTM D6298, *Standard Specification for Fiberglass Reinforced Styrene-Butadiene-Styrene (SBS) Modified Bituminous Sheet with a Factory Applied Metal Surface,* 2016.

ASTM D6305, *Standard Practice for Calculating Bending Strength Design Adjustment Factors for Fire-Retardant-Treated Plywood Roof Sheathing*, 2008 (2015)e1.

ASTM D6380/D6380M, *Standard Specification for Asphalt Roll Roofing (Organic Felt),* 2003 (2018).

ASTM D6381/D6381M, *Standard Test Method for Measurement of Asphalt Shingle Mechanical Uplift Resistance*, 2015.

ASTM D6694/D6694M, *Standard Specification for Liquid-Applied Silicone Coating Used in Spray*

Polyurethane Foam Roofing, 2015.

ASTM D6754/D6754M, *Standard Specification for Ketone Ethylene Ester Based Sheet Roofing,* 2015.

ASTM D6757, *Standard Specification for Underlayment Felt Containing Inorganic Fibers used in Steep Slope Roofing,* 2018.

ASTM D6841, *Standard Practice for Calculating Design Valve Treatment Adjustment Factors for Fire-Retardant-Treated Lumber,* 2016.

ASTM D6878/D6878M, *Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing,* 2017.

ASTM D7032, *Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails,* 2017.

ASTM D7158/D7158M, *Standard Test Method for Wind Resistance of Asphalt Shingles (Uplift Force/Uplift Resistance Method)*, 2019.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2019a~~ 2021 .

ASTM E90, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements*, 2009 (2016).

ASTM E96/E96M, *Standard Test Methods for Water Vapor Transmission of Materials*, 2016.

ASTM E108, *Standard Test Methods for Fire Tests of Roof Coverings,* ~~2017~~ 2020a .

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials,* ~~2018c e1~~ 2020 .

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

ASTM E492, *Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine*, 2009 (2016)e1.

ASTM E605, *Standard Test Methods for Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members,* 2019.

ASTM E648, *Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source,* ~~2017a~~ 2019a e1 .

ASTM E736/E736M, *Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members,*2017.

ASTM E814, *Standard Test Method for Fire Tests of Penetration Firestop Systems*, 2013a (2017).

ASTM E970, *Standard Test Method for Critical Radiant Flux of Exposed Attic Floor Insulation Using a Radiant Heat Energy Source*, 2017.

ASTM E1300, *Standard Practice for Determining Load Resistance of Glass in Buildings*, 2016.

ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, 2017.

ASTM E1591, *Standard Guide for Obtaining Data for Fire Growth Models*, ~~2013~~ 2020 .

ASTM E1592, *Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference*, 2005 (2017).

ASTM E1602, *Standard Guide for Construction of Solid Fuel Burning Masonry Heaters*, 2003 (2017).

ASTM E1966, *Standard Test Method for Fire-Resistive Joint Systems*, 2015 (2019).

ASTM E2072, *Standard Specification for Photoluminescent (Phosphorescent) Safety Markings*, 2014.

ASTM E2073, *Standard Test Method for Photopic Luminance of Photoluminescent (Phosphorescent) Markings*, 2019.

ASTM E2174, *Standard Practice for On-Site Inspection of Installed Firestops*, 2018.

ASTM E2307, *Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-Scale, Multi-story Test Apparatus*, 2015b e1.

ASTM E2393, *Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers*, 2010a (2015).

ASTM E2404, *Standard Practice for Specimen Preparation and Mounting of Textile, Paper or Polymeric (including Vinyl) and Wood Wall or Ceiling Coverings, Facings and Veneers, to Assess Surface Burning Characteristics*, 2017.

ASTM E2573, *Standard Practice for Specimen Preparation and Mounting of Site-fabricated Stretch Systems to Assess Surface Burning Characteristics*, ~~2017~~ 2019 .

ASTM E2579, *Standard Practice for Specimen Preparation and Mounting of Wood Products to Assess Surface Burning Characteristics*, ~~2019~~ 2020 .

ASTM E2599, *Standard Practice for Specimen Preparation and Mounting of Reflective Insulation, Radiant Barrier, and Vinyl Stretch Ceiling Materials for Building Applications to Assess Surface Burning Characteristics*, 2018.

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

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

ASTM E2837, *Standard Test Method for Determining the Fire Resistance of Continuity Head-of-Wall Joint Systems*, 2013 (2017).

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

ASTM F547, *Standard Terminology of Nails for Use with Wood and Wood-Based Materials*, 2017.

ASTM F851, *Standard Test Method for Self-Rising Seat Mechanisms*, 1987 (2013).

ASTM F1577, *Standard Test Methods for Detention Locks for Swinging Doors*, 2005 (2019).

ASTM F1667, *Standard Specification for Driven Fasteners: Nails, Spikes, and Staples*, 2018a.

Statement of Problem and Substantiation for Public Input

update dates of fire tests

Submitter Information Verification

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Submittal Date: Mon May 17 19:49:21 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: CI-8043-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 107-NFPA 5000-2021 [New Section after 2.3.28]

TITLE OF NEW CONTENT

Type your content here ...

RESNA Publications

Rehabilitation Engineering and Assistive Technology Society of North America, 2001 K Street NW, 3rd Floor North, Washington, DC 20006.

ANSI/RESNA ED-1, *Emergency Stair Travel Devices Used by Individuals with Disabilities, Volume 1* , 2021.

Statement of Problem and Substantiation for Public Input

The proposed change relocates the referenced standard to a RESNA Publications section, matching the format of NFPA 101. This change will help code officials find contact information regarding the standard more efficiently. The entry also updates the referenced standard to the current edition.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 68-NFPA 5000-2021 [Section No. 2.3.5]	PI 68 and the proposed change effectively move the location of the referenced standard.

Submitter Information Verification

Submitter Full Name:	Glenn Hedman
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Committee:	BLD-FUN

Committee Statement

Resolution: CI-8043-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 120-NFPA 5000-2021 [Section No. 2.3.38]

2.3.38 UL Publications.

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

UL 9, *Fire Tests of Window Assemblies,*2009, revised ~~2015~~ 2019 .

UL 10B, *Fire Tests of Door Assemblies*, 2008, revised ~~2015~~ 2020 .

UL 10C, *Positive Pressure Fire Tests of Door Assemblies*, 2016.

UL 217, *Smoke Alarms*, ~~2015~~ 2020, revised 2021 .

UL 263, *Fire Tests of Building Construction and Materials,* 2011, revised ~~2019~~ 2020 .

UL 294, *Access Control System Units,*2018.

~~UL 300~~ CAN/UL/ULC 300 , *Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment,*- ~~2018~~ 2019 .

UL 300A, Outline of Investigation *Extinguishing System Units for Residential Range Top Cooking Surfaces*, 2006.

UL 305, *Panic Hardware,* 2012, revised 2017.

UL 555, *Fire Dampers,* 2006, revised ~~2016~~ 2020 .

UL 555C, *Ceiling Dampers,*- ~~2014~~ 2020 .

UL 555S, *Smoke Dampers,* 2014, revised ~~2016~~ 2020 .

UL 580, *Tests for Uplift Resistance of Roof Assemblies,* 2006, revised ~~2013~~ 2019 .

UL 723, *Test for Surface Burning Characteristics of Building Materials*, 2018.

UL 790, *Test Methods for Fire Tests of Roof Coverings,* 2004, revised 2018.

UL 924, *Emergency Lighting and Power Equipment,* 2016, revised ~~2018~~ 2020 .

UL 1040, *Fire Test of Insulated Wall Construction,* 1996, revised 2017.

UL 1256, *Fire Test of Roof Deck Constructions,* 2002, revised ~~2013~~ 2018 .

UL 1286, *Office Furnishings,* 2008, revised ~~2018~~ 2021 .

UL 1479, *Fire Tests of Penetration Firestops,* 2015, revised 2021 .

UL 1489, *Fire Tests of Fire Resistant Pipe Protection Systems Carrying Combustible Liquids*, 2016.

UL 1703, *Flat-Plate Photovoltaic Modules and Panels*, 2002, revised ~~2018~~ 2019 .

UL 1715, *Fire Test of Interior Finish Material,* 1997, revised 2017.

UL 1897, *Uplift Tests for Roof Covering Systems,* 2015, revised 2020 .

UL 1975, *Fire Tests for Foamed Plastics Used for Decorative Purposes,* 2006.

UL 1994, *Luminous Egress Path Marking Systems,* 2015, revised 2020 .

UL 2079, *Tests for Fire Resistance of Building Joint Systems*, 2015, revised 2020 .

UL 2218, *Impact Resistance of Prepared Roof Covering Materials,* 2010, revised ~~2018~~ 2020 .

~~UL 2390, *Tests for Wind Resistant Asphalt Shingles with Sealed Tabs* , 2003, revised 2009.~~

UL 2703, *Mounting Systems, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels*, 2015, revised 2021 .

CAN/ULC S102.2, *Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings and Miscellaneous Materials and Assemblies,* 2010, revised 2018 .

Statement of Problem and Substantiation for Public Input

UL 2390 has been withdrawn by UL as a standard and is replaced by ASTM D7158. The other changes are in relation to publication updates. ASTM D7158 has been updated such that all occupancy classes are within scope for Class D, G, and H and do not require the special calculations.

CAN/UL/ULC 300 is now a bi-national standard.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 125-NFPA 5000-2021 [Section No. G.1.2.20]	

Submitter Information Verification

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Committee: BLD-FUN

Committee Statement

Resolution: CI-8043-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 95-NFPA 5000-2021 [Section No. 2.3.38]

2.3.38 UL Publications.

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

UL 9, *Fire Tests of Window Assemblies,*2009, revised 2015.

UL 10B, *Fire Tests of Door Assemblies*, 2008, revised 2015.

UL 10C, *Positive Pressure Fire Tests of Door Assemblies*, 2016.

UL 217, *Smoke Alarms*, 2015.

UL 263, *Fire Tests of Building Construction and Materials,* 2011, revised 2019.

UL 294, *Access Control System Units,*2018.

UL 300, *Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment,* 2018.

UL 300A, *Extinguishing System Units for Residential Range Top Cooking Surfaces*, 2006.

UL 305, *Panic Hardware,* 2012, revised 2017.

UL 555, *Fire Dampers,* 2006, revised 2016.

UL 555C, *Ceiling Dampers,* 2014.

UL 555S, *Smoke Dampers,* 2014, revised 2016.

UL 580, *Tests for Uplift Resistance of Roof Assemblies,* 2006, revised 2013.

UL 723, *Test for Surface Burning Characteristics of Building Materials*, 2018.

UL 790, *Test Methods for Fire Tests of Roof Coverings,* 2004, revised 2018.

UL 924, *Emergency Lighting and Power Equipment,* 2016, revised 2018.

UL 1040, *Fire Test of Insulated Wall Construction,* 1996, revised 2017.

UL 1256, *Fire Test of Roof Deck Constructions,* 2002, revised 2013.

UL 1286, *Office Furnishings,* 2008, revised 2018.

UL 1479, *Fire Tests of Penetration Firestops,* 2015.

UL 1489, *Fire Tests of Fire Resistant Pipe Protection Systems Carrying Combustible Liquids*, 2016.

UL 1703, *Flat-Plate Photovoltaic Modules and Panels*, 2002, revised 2018.

UL 1715, *Fire Test of Interior Finish Material,* 1997, revised 2017.

UL 1897, *Uplift Tests for Roof Covering Systems,* 2015.

UL 1975, *Fire Tests for Foamed Plastics Used for Decorative Purposes,* 2006.

UL 1994, *Luminous Egress Path Marking Systems,* 2015.

UL 2079, *Tests for Fire Resistance of Building Joint Systems*, 2015.

UL 2218, *Impact Resistance of Prepared Roof Covering Materials,* 2010, revised 2018.

UL 2390, *Tests for Wind Resistant Asphalt Shingles with Sealed Tabs*, 2003, revised 2009.

UL 2525, Two-Way Emergency Communications Systems for Rescue Assistance, 2020.

UL 2703, *Mounting Systems, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels*, 2015.

CAN/ULC S102.2, *Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings and Miscellaneous Materials and Assemblies,* 2010.

Statement of Problem and Substantiation for Public Input

This Public Input seeks to require two-way communication systems to comply with the applicable product listing standard and the installation standard. Two-way communication systems are intended to allow occupants in need of assistance to evacuate a building to areas of safety. These systems must work correctly when they are needed in an emergency condition.

UL 2525 is a new Product Standard for products intended to be used in combination with other devices to form a rescue assistance two-way emergency communication system. NFPA 72 within Chapter 24 has the requirements for installation of these systems including main panels, remote panels, remote call stations, pathway integrity and backup power.

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Committee: BLD-FUN

Committee Statement

Resolution: CI-8043-NFPA 5000-2021
Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 116-NFPA 5000-2021 [New Section after 3.1]

Sprinkler system

A system, commonly activated by heat from a fire and discharges water over the fire area, that consists of an integrated network of piping designed in accordance with fire protection engineering standards that includes a water supply source, a control valve, a waterflow alarm, and a drain. The portion of the sprinkler system above ground is a network of specifically sized or hydraulically designed piping installed in a building, structure, or area, generally overhead, and to which sprinklers are attached in a systematic pattern. (13, 2022)

Automatic sprinkler

A fire suppression or control device that operates automatically when its heat-activated element is heated to its thermal rating or above, allowing to discharge over a specified area. (13, 2022)

Statement of Problem and Substantiation for Public Input

Sprinkler systems and automatic sprinklers should be defined in NFPA 5000. This PI extracts definitions from the 2022 edition of NFPA 13. This correlates to NFPA 101 PI 338.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 114-NFPA 5000-2021 [Section No. 55.3]	

Submitter Information Verification

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Committee: BLD-BSF

Committee Statement

Resolution: FR-8066-NFPA 5000-2021
Statement: The term Sprinkler System and Automatic sprinkler is currently used throughout the code therefore the committee extracted the definitions from NFPA 13

Public Input No. 49-NFPA 5000-2021 [New Section after 3.3.23]

3.3.23.2 Initiating Device.

A system component that originates transmission of a change-of-state condition, such as in a smoke detector, manual fire alarm box, or supervisory switch. [72,2019]

Statement of Problem and Substantiation for Public Input

This definition is an extract from NFPA 72, Section 3.3.141 to correlate with NFPA 5000 PI 48

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 48-NFPA 5000-2021 [Section No. 55.3.2.1.1]	
Public Input No. 48-NFPA 5000-2021 [Section No. 55.3.2.1.1]	

Submitter Information Verification

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Submittal Date: Fri May 21 10:37:14 EDT 2021
Committee: BLD-BSF

Committee Statement

Resolution: FR-8067-NFPA 5000-2021
Statement: Definition of Initiating Devices has been extracted from NFPA 72 as “Initiating devices” is added to section 55.3.2.1.1 with FR-8068 as proposed with PI-48.

Public Input No. 118-NFPA 5000-2021 [Section No. 3.3.140]

3.3.140 Damper.

3.3.140.1 Ceiling Radiation Damper.

A listed device installed in a ceiling membrane of a fire resistance–rated floor/ceiling or roof/ceiling assembly to automatically limit the radiative heat transfer through an air inlet/outlet opening. (BLD-FIR)

3.3.140.2 Combination Fire ~~and~~ - Smoke Damper.

A device that meets both the fire damper and smoke damper requirements. (BLD-FIR)

3.3.140. 3 Corridor Damper.

A listed device intended for use where air ducts penetrate or terminate at horizontal openings in the ceilings of fire-resistance-rated corridors, where the corridor ceilign is constructed as required for the corridor walls.

3.3.140.4 * Fire Damper.

A device, installed in an air-distribution system, that is designed to close automatically upon detection of heat to interrupt migratory airflow and to restrict the passage of flame. (BLD-FIR)

3.3.140.4 5 Smoke Damper.

A device within an air-distribution system to control the movement of smoke. (BLD-FIR)

Statement of Problem and Substantiation for Public Input

Editorial change to combination fire-smoke damper to be consistent with the UL Marking Guide. This will also require a global change of the term throughout NFPA 5000.

New definition proposed for corridor dampers to define that type of damper as used in NFPA 5000.

It is recommended that all damper definitions be extracted from NFPA 90A. Some other changes have been proposed to the definitions in NFPA 90A that are not included herein. Whereas the terms are defined in multiple documents, one document should have primary responsibility for the definitions and it is recommended that the responsibility should be assigned to the NFPA 90A Technical Committee.

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Submittal Date: Tue Jun 01 12:43:18 EDT 2021
Committee: BLD-FIR

Committee Statement

Resolution: FR-8003-NFPA 5000-2021
Statement: Damper definitions will be extracted from NFPA 90A to help ensure consistency in use of damper terminologies between NFPA codes and standards.

There are public inputs related to the damper definitions in NFPA 90A. The committee will review any actions taken by the NFPA 90A committee regarding damper definitions at second draft.

Similar action taken in NFPA 101 via FR-6516.

Public Input No. 4-NFPA 5000-2021 [Section No. 3.3.214.7]

3.3.214.7* Limited Care Facility.

A building or portion of a building used on a 24-hour basis for the housing of four or more persons who are incapable of self-preservation because of age; physical ~~limitations~~ disability due to accident or illness; or ~~limitations such as mental retardation/developmental~~ intellectual disability, mental ~~illness~~ health condition , or ~~chemical dependency~~ substance abuse disorder . (BLD-HEA)

Statement of Problem and Substantiation for Public Input

The NFPA Disability Access Review and Advisory Committee (DARAC) requests an update to the terminology used to describe individuals with disabilities. In general, we suggest using “people first” language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, we recommend substituting the appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being “for” such people. For example, we would say “accessible parking” instead of “handicap parking”. The substitute terms we recommend are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.
We used following resources to develop our input:

- “Guidelines for Writing About People with Disabilities” ADA National Network at https://adata.org/factsheet/ADANN-writing
- “Disability Style Guide” National Center on Disability and Journalism at https://ncdj.org/style-guide/
- “Resources for Reporters Writing About Blindness and Vision Loss” American Fooundation for the Blind at https://www.afb.org/news-publications/press-room/reporter-resources-writing-about-blindness-vision-loss
- “Five Tips for Writing About People with Disabilities” Adaptive Sports Center at https://www.adaptivesports.org/blog/announcements/five-tips-writing-about-people-disabilities
- “Fact Sheet: Drug Addiction and Federal Disability Rights Laws” U.S. Department of Health and Hum Services: Office for Civil Rights at https://www.hhs.gov/sites/default/files/drug-addiction-aand-federal-disability-rights-laws-fact-sheet.pdf
- “People First Language” District of Columbia Office of Disability Rights at https://odr.dc.gov/page/people-first-language

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Submittal Date: Thu May 06 13:44:59 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: FR-8207-NFPA 5000-2021

Statement: The NFPA Disability Access Review and Advisory Committee (DARAC) has requested an update to the terminology used to describe individuals with disabilities. They suggest using “people first” language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, they recommend substituting the appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being “for” such people. For example, they would say “accessible parking” instead of “handicap parking”. The substitute terms are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.

The following resources were used to develop this revision:

• “Guidelines for Writing About People with Disabilities” ADA National Network at https://adata.org /factsheet/ADANN-writing

• “Disability Style Guide” National Center on Disability and Journalism at https://ncdj.org/style-guide/

• “Resources for Reporters Writing About Blindness and Vision Loss” American Fooundation for the Blind at https://www.afb.org/news-publications/press-room/reporter-resources-writing-about-blindness-vision-loss

• “Five Tips for Writing About People with Disabilities” Adaptive Sports Center at https://www.adaptivesports.org/blog/announcements/five-tips-writing-about-people-disabilities

• “Fact Sheet: Drug Addiction and Federal Disability Rights Laws” U.S. Department of Health and Hum Services: Office for Civil Rights at https://www.hhs.gov/sites/default/files/drug-addiction-aand-federal-disability-rights-laws-fact-sheet.pdf

• “People First Language” District of Columbia Office of Disability Rights at https://odr.dc.gov /page/people-first-language

Public Input No. 13-NFPA 5000-2021 [Section No. 3.3.303]

3.3.303 Gypsum Panel Products.

The general name for a family of sheet products consisting essentially of gypsum, also referred to as gypsum panels . Gypsum board is a gypsum panel product. (BLD-SCM)

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and determined that some of the definitions were inconsistent with other codes and gypsum industry publications. In this case, the proposed additional text will help clarify what the term encompasses.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 14-NFPA 5000-2021 [Section No. 3.3.306.1]	

Submitter Information Verification

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Submittal Date: Mon May 17 14:38:35 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8114-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 14-NFPA 5000-2021 [Section No. 3.3.306.1]

3.3.306.1 Type X Gypsum Wallboard.

A gypsum ~~wallboard~~ panel product specially manufactured to provide specific fire-resistant characteristics.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and determined that some of the definitions were inconsistent with other codes and gypsum industry publications. This Public Input is intended to correct the definitions for consistency.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 13-NFPA 5000-2021 [Section No. 3.3.303]	

Submitter Information Verification

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Submittal Date: Mon May 17 14:41:22 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8115-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 12-NFPA 5000-2021 [Section No. 3.3.678]

3.3.678 Wall.

A component that has a slope of 60 degrees or greater with the horizontal plane used to enclose or divide space. [**ASCE/SEI 7:**11.2] (BLD-SCM)

3.3.678.1 Bearing Wall.

Any wall meeting either of the following classifications: (1) any metal or wood stud wall that supports more than 100 lb/linear ft (1459 N/m) of vertical load in addition to its own weight or (2) any concrete or masonry wall that supports more than 200 lb/linear ft (2919 N/m) of vertical load in addition to its own weight. [**ASCE/SEI 7:**11.2] (BLD-SCM)

3.3.678.2 Cavity Wall.

A wall built of masonry units or of plain concrete, or a combination of these materials arranged to provide an air space within the wall and in which the inner and outer wythes of the wall are tied together with metal ties. (BLD-SCM)

3.3.678.3 ~~Fire~~ Exterior wall assembly.

A wall system providing protection of the building interior space from the effects of the exterior environment; it includes, but is not limited to, the following: exterior wall covering, framing, weather-resistive barriers, and insulation.

3.3.678.4 Exterior wall covering

The exterior side of an exterior wall assembly; it includes but is not limited to, veneer, siding, and systems such as exterior insulation and finish systems, metal-composite materials, or decorative exterior finishes.

3.3.678. 5 F ire Barrier Wall.

A wall, other than a fire wall, having a fire resistance rating. (BLD-BLC)

3.3.678.4 6 * Fire Wall.

A wall separating buildings or subdividing a building to prevent the spread of fire and having a fire resistance rating and structural stability. [**221,** 2021] (BLD-BLC)

3.3.678.4 6 .1 High Challenge Fire Wall.

A wall used to separate buildings or subdivide a building with high fire challenge occupancies, having enhanced fire resistance ratings and enhanced appurtenance protection to prevent the spread of fire, and having structural stability. [**221,** 2021] (BLD-BLC)

3.3.678.~~5~~ 7 Foundation Wall.

A wall below the floor nearest the finished ground level that serves as a structural support for a wall, pier, column, or other structural part of a building or structure, or a basement wall that resists lateral soil load. (BLD-SCM)

3.3.678.~~6~~ 8 Light-Framed Wall.

A wall with wood or steel studs. [**ASCE/SEI 7:**11.2] (BLD-SCM)

3.3.678.~~7~~ 9 Light-Framed Wood Shear Wall.

A wall constructed with wood studs and sheathed with material rated for shear resistance. [**ASCE/SEI 7:**11.2] (BLD-SCM)

3.3.678.~~8~~ 10 Masonry Bonded Hollow Wall.

A wall built of masonry units arranged to provide an air space within the wall, in which the inner and outer wythes of the wall are tied together with masonry units. (BLD-SCM)

3.3.678.~~9~~ 11 Nonbearing Wall.

Any wall that is not a bearing wall. [**ASCE/SEI 7:**11.2] (BLD-SCM)

3.3.678.~~10~~ 12 Nonstructural Wall.

A wall other than a bearing wall or shear wall. [**ASCE/SEI 7:**11.2] (BLD-SCM)

3.3.678.~~11~~ 13 Proscenium Wall.

The wall that separates the stage from the auditorium or house. (BLD-AXM)

3.3.678.~~12~~ 14 Retaining Wall.

A wall that is not laterally supported at the top, and is designed to resist lateral soil load. (BLD-SCM)

3.3.678.~~13~~ 15 Shear Wall.

A wall, bearing or nonbearing, designed to resist lateral forces acting in the plane of the wall (sometimes referred to as a vertical diaphragm). [**ASCE/SEI 7:**11.2] (BLD-SCM)

3.3.678.~~14~~ 16 Veneered Wall.

A wall having a facing of masonry, plastic, glass, or other material securely attached to the backing but not bonded to exert a common reaction under load. (BLD-SCM)

Statement of Problem and Substantiation for Public Input

Testing for assessing whether flame will spread upwards when a fire starts on an exterior wall is conducted using NFPA 285 and on the entire exterior wall assembly, as required by section 37.1.5. The test is not conducted simply on the exterior wall covering. Therefore, it is important to define both terms (exterior wall assembly and exterior wall covering) to ensure that the distinction is clear for users of the code.

Section 37.1.5 describes what types of exterior wall assemblies need to be tested to NFPA 285 and section 7.2.3.2.12 explains that exterior wall assemblies can be constructed of materials contained in exterior wall assemblies tested in accordance with, and meeting the conditions of acceptance of, NFPA 285.

This public input is being made on behalf of a task group of NFPA 5000 set up by Standards Council, namely the NFPA 101/5000, BLC/SCM/FUN/FIZ Task Group. It is chaired by Moriel Kaplan and composed of: Barry Badders, Ben Caldwell, Mark Chrisman, Paul Coats, David Collins, Richard Davis, Marcelo Hirschler, Bonnie Manley, Shamim Rashid-Sumar, Sarah Rice, and Jonathan Roberts.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
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Submittal Date: Fri May 14 16:15:05 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8104-NFPA 5000-2021
Statement: The committee agreed with the submitter for the addition of these definitions in Chapter 3.

Public Input No. 124-NFPA 5000-2021 [Section No. 4.4.10]

4.4.10 Maintenance.

Whenever or wherever any device, equipment, system, condition, arrangement, or level of protection, or any other feature, is required for compliance with the provisions of this *Code*, such device, equipment, system, condition, arrangement, level of protection, or other feature shall thereafter be inspected and maintained in accordance with applicable NFPA requirements or as directed by the authority having jurisdiction , unless the *Code* exempts such maintenance.

Statement of Problem and Substantiation for Public Input

The intent of this public input is to provide correlation and consistency for ITM requirements throughout NFPA 5000 and NFPA 1. The previous requirements only stated that passive system items were required to be maintained without any guidance to owners on how to maintain passive system items. This public input now inserts pointers to NFPA 1, that provide the guidance for these passive system items. Active protection systems in NFPA 5000 are required to comply with NFPA 1 for ITM but not passive systems. This will provide uniform ITM requirements across active and passive protection systems. Additionally, the NFPA 1 committees pushed for inclusion of “inspections” globally throughout the fire code.

Submitter Information Verification

Submitter Full Name: Andrew Bevis
Organization: National Fire Sprinkler Associ
Street Address:
City:
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Zip:
Submittal Date: Tue Jun 01 13:18:37 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: FR-8047-NFPA 5000-2021
Statement: The revision is intended for consistency with the corresponding provision in NFPA 101.

Public Input No. 112-NFPA 5000-2021 [New Section after 4.5.8.3]

TITLE OF NEW CONTENT 4.5.8.4*

Type your content here ...

Where approved, remote inspections shall be permitted in accordance with NFPA 915.

Statement of Problem and Substantiation for Public Input

The interest in remote inspection applications and methodologies has accelerated in recent years. Remote inspection, when conducted properly, should achieve a comparable, or enhanced result, to an in-person inspection. Additionally, tangible time and financial savings may be achieved. This Public Input seeks to provide a direct reference to NFPA 915 when the use of remote inspections is permitted by the authority having jurisdiction. NFPA 915 provides standardized requirements for jurisdictions to implement as they develop remote inspection programs.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 113-NFPA 5000-2021 [New Section after A.4.5.6]	

Submitter Information Verification

Submitter Full Name: Jim Muir
Organization: Clark County Washington Building Safety
Affiliation: Chair, NFPA 915 Committee
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 31 19:45:45 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: The public input has merit, however, NFPA 915 has not yet been issued since it is a proposed standard and is in the same revision cycle as NFPA 5000. The submitter is encouraged to submit a public comment to allow the committee to reassess the status of the proposed standard at the second draft stage.

Public Input No. 3-NFPA 5000-2021 [Section No. 7.1.4.2]

7.1.4.2* Limited-Combustible Material.

A material shall be considered a limited-combustible material where one of the following is met:

(1) The conditions of 7.1.4.2.1 and 7.1.4.2.2, and the conditions of either 7.1.4.2.3 or 7.1.4.2.4, shall be met.

(2) The conditions of 7.1.4.2.5 shall be met.

7.1.4.2.1

The material does not comply with the requirements for a noncombustible material in accordance with 7.1.4.1.

7.1.4.2.2

The material, in the form in which it is used, exhibits a potential heat value not exceeding 3500 Btu/lb (8141 kJ/kg) when tested in accordance with NFPA 259.

7.1.4.2.3

The material shall have a structural base of noncombustible material with a surfacing not exceeding a thickness of ⅛ in. (3.2 mm) where the surfacing exhibits a flame spread index not greater than 50 when tested 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*.

7.1.4.2.4

The material shall be composed of materials that in the form and thickness used neither exhibit a flame spread index greater than 25 nor exhibit evidence of continued progressive combustion when tested in accordance with ASTM E84 or UL 723 and are of such composition that all surfaces that would be exposed by cutting through the material on any plane would neither exhibit a flame spread index greater than 25 nor exhibit evidence of continued progressive combustion when tested in accordance with ASTM E84 or UL 723.

7.1.4.2.5

Materials shall be considered limited-combustible materials where tested in accordance with ASTM E2965, *Standard Test Method for Determination of Low Levels of Heat Release Rate for Materials and Products Using an Oxygen Consumption Calorimeter*, at an incident heat flux of 75 kW/m^2 for a 20-minute exposure, and both the following conditions are met:

(1) The peak heat release rate shall not exceed 150 kW/m^2 for longer than 10 seconds.

(2) The total heat released shall not exceed 8 MJ/m^2.

7.1.4.2.6

Where the term *limited-combustible* is used in this *Code*, it shall also include the term *noncombustible*.

Statement of Problem and Substantiation for Public Input

This PI is intended to retain the language in NFPA 5000 as it appears in the 2021 edition. For some reason, NFPA 101-2021 extracted language from NFPA 5000-2018 instead of from NFPA 5000-2021 and that made the two standards to become out-of sync. TIA 1559 to NFPA 101 corrects that mistake and this PI is intended to ensure that the language in NFPA 5000-2021 is not revised.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
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Zip:

Submittal Date: Thu Apr 01 21:54:22 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: The committee did not determine that any discrepancies to be found between the NFPA 101 and NFPA 5000 text. The submitter and the public are encouraged to submit Public Comment during the Second Draft phase.

Public Input No. 57-NFPA 5000-2021 [Section No. 7.2.3.2.11.1]

7.2.3.2.11.1

Interior nonbearing walls shall be constructed of ~~noncombustible or limited-combustible materials.~~ approved materials consistent with Section 7.2.3.2.13 and with the required fire resistance ratings in Table 7.2.1.1.

Statement of Problem and Substantiation for Public Input

This section is inconsistent with Section 7.2.3.2.13 and with the required fire resistance ratings in Table 7.2.1.1. Note that the table states that interior nonbearing walls are not required to have a fire resistance rating and 7.2.3.2.13 gives a list of acceptable combustible materials. Therefore, this section is incorrect (and is most likely being ignored).

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
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Submittal Date: Mon May 24 18:08:05 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: The committee did not agree with this proposed change as the existing language was determined to be clear. The submitter is encouraged to provide Public Comment during the Second Draft phase to provide further clarification.

Public Input No. 58-NFPA 5000-2021 [Section No. 7.2.3.2.11.2]

7.2.3.2.11.2

Interior nonbearing walls ~~required to have a fire resistance rating of 2 hours or less~~ shall be permitted to be fire-retardant-treated wood ~~enclosed within noncombustible or limited-combustible materials~~ , provided that such walls are not used as shaft enclosures.

Statement of Problem and Substantiation for Public Input

The table of fire resistance ratings (Table 7.2.1.1) states that interior nonbearing walls do not need a fire resistance rating. Therefore this requirement is not meaningful.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
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Submittal Date: Mon May 24 18:23:11 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: The committee did not agree with the proposed language from the submitter. As provided, the language will change the intent of this section and lead to unintended consequences. The submitter is encouraged to provide Public Comment during the Second Draft phase.

Public Input No. 19-NFPA 5000-2021 [Section No. 7.2.3.2.12]

7.2.3.2.12 Exterior Nonbearing Walls.

Nonbearing exterior walls shall be constructed of ~~noncombustible materials, limited-combustible materials, or materials specified in 7.2.3.2.12.1 or 7.2.3.2.12.2~~ .

~~**7.2.3.2.12.1** –~~

~~Fire-retardant-treated wood shall be permitted in exterior nonbearing walls when such walls are not required to have fire resistance ratings.~~

~~**7.2.3.2.12.2** –~~

~~Exterior nonbearing walls~~

materials complying with any one of the following.

(1) Noncombustible materials.

(2) Limited combustible materials.

(3) Materials contained in exterior wall assemblies tested in accordance with, and meeting the conditions of acceptance of,

~~NFPA 285, shall be permitted.~~

NFPA 285.

(4) Fire retardant treated wood materials when the wall is not required to have fire resistance ratings.

Statement of Problem and Substantiation for Public Input

This section states that for Type I and Type II construction, exterior nonbearing walls can be built with 4 types of materials: noncombustible, limited combustible, exterior wall assemblies passing NFPA 285 and (if no fire resistance rating is required) fire retardant treated wood. The PI simply clarifies this. It needs to be clear that the concept of limited combustible materials (as described in section 7.1.4.2) is distinct from the requirement associated with materials contained in an exterior wall assembly tested in accordance with (and complying with the requirements of) NFPA 285. This PI does not make any technical changes but simply provides clarification to avoid confusion.
This public input is being made on behalf of a task group of NFPA 5000 set up by Standards Council, namely the NFPA 101/5000, BLC/SCM/FUN/FIZ Task Group. It is chaired by Moriel Kaplan and composed of: Barry Badders, Ben Caldwell, Mark Chrisman, Paul Coats, David Collins, Richard Davis, Marcelo Hirschler, Bonnie Manley, Shamim Rashid-Sumar, Sarah Rice, and Jonathan Roberts.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Mon May 17 18:31:26 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: The committee is requesting that the task group revisit this PI and clarify language concerning the need for this change, as well as the specif requirements. There was discussion concerning (3) how NFPA 285 is utilized as an exterior non-bearing wall and to why the proposed change should be made, as well as (4) which may need further review and input. The committee welcomes public comment on this topic at the Second Draft phase.

Public Input No. 55-NFPA 5000-2021 [Section No. 7.2.3.2.14]

7.2.3.2.14* ~~Ceiling Cavity~~ Plenums ~~and Raised Floor Plenums~~ .

7.2.3.2.14.1 General.

~~Ceiling cavity plenums and raised floor plenums shall~~ Plenums shall be permitted to be used to supply air to the occupied area or return and exhaust air from the occupied area, provided the requirements of NFPA 90A, are met.

7.2.3.2.14.2*

For the purpose of this *Code,* the application of these provisions for ~~ceiling cavity~~ plenums ~~and raised floor plenums~~ shall apply to all buildings and shall not be subject to the limitations as set forth in Section 1.3 of NFPA 90A.

7.2.3.2.14.3

Materials exposed to the airflow within plenums shall comply with NFPA 90A.

Statement of Problem and Substantiation for Public Input

There is no dispute that NFPA 90A recognizes four types of plenums: ceiling cavity plenums, apparatus casing plenums, air-handling room plenums, and raised floor plenums. However all of them are subcategories of plenums and a plenum is defined in NFPA 90A (and in NFPA 5000) as: "A compartment or chamber to which one or more air ducts are connected and that forms part of the air distribution system." Therefore, this section of NFPA 5000 should address all plenums, since NFPA standards council gave jurisdiction to NFPA 90A for requirements in ducts and plenums. All types of plenums recognized by NFPA 90A are suitable (by definition) to supply air and exhaust air. The new section is added to clarify that all materials contained within plenums must comply with the requirements of NFPA 90A.

Submitter Information Verification

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Submittal Date: Mon May 24 17:51:49 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: FR-8076-NFPA 5000-2021
Statement: The committee agreed with the submitter on this proposed change based on the supporting statement. The committee also agreed that this coordinates with NFPA 90A and the definition within NFPA 5000 which references NFPA 90A.

Public Input No. 15-NFPA 5000-2021 [Section No. 7.2.5.4]

7.2.5.4 Concealed Spaces.

Certain concealed spaces shall be permitted in accordance with the following:

(1) Concealed spaces in accordance with 7.2.5.5.5.4.

(2) Concealed spaces within 1-hour fire-resistance-rated interior walls and partitions in accordance with 7.2.5.6.3 do not require additional protection.

(3) Concealed spaces in floors, roofs, or walls of cross-laminated timber construction in accordance with one or more of the following and which do not contain combustibles other than building elements and electrical, mechanical, fire protection, or plumbing materials and equipment:

(a) The building is sprinklered throughout and automatic sprinklers are also provided in the concealed space.

(b) The concealed space is filled completely with noncombustible insulation.

(c) Surfaces within the concealed space are fully sheathed with not less than ½ in. (12.7 mm) thick gypsum ~~board~~ panels or noncombustible materials.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 16-NFPA 5000-2021 [Section No. 7.2.5.6.1.1]	
Public Input No. 17-NFPA 5000-2021 [Section No. 7.2.5.6.1.2]	
Public Input No. 18-NFPA 5000-2021 [Section No. 7.2.5.6.7]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
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Submittal Date: Mon May 17 14:48:27 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: FR-8078-NFPA 5000-2021
Statement: The committee agreed with the submitter that changing to industry-standard terminology is appropriate for this Code.

Public Input No. 16-NFPA 5000-2021 [Section No. 7.2.5.6.1.1]

7.2.5.6.1.1

Type IV construction with mass timber construction elements having fire resistance ratings required for Type I (332) shall be permitted where they comply with all of the following:

(1) The building shall be protected throughout with an approved automatic sprinkler system in accordance with 55.3.1.1(1).

(2) The fire resistance rating of construction elements and connections shall meet one of the following:

(a) Two-thirds of the required fire resistance rating of construction elements shall be provided by gypsum ~~wallboard~~ panels in accordance with Section 4.4.2 of AWC TR10, *Calculating the Fire Resistance of Exposed Wood Members*.

(b) Wood connections, including connectors, fasteners, and members, shall be protected from fire exposure for the required fire resistance time in accordance with Section 4.5 of AWC TR10, *Calculating the Fire Resistance of Exposed Wood Members*.

(3) All elements of the exterior wall shall comply with 7.2.5.6.7(1).

(4) In buildings equal to or less than 180 ft (54.9 m) in height, exit enclosures, elevator hoistways, and other shafts shall be permitted to be constructed of mass timber elements.

(5) In buildings greater than 180 ft (54.9 m) but less than or equal to 270 ft (82.3 m) in height, exit enclosures, elevator hoistways, and other shafts shall be constructed of noncombustible or limited-combustible materials.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 15-NFPA 5000-2021 [Section No. 7.2.5.4]	
Public Input No. 17-NFPA 5000-2021 [Section No. 7.2.5.6.1.2]	
Public Input No. 18-NFPA 5000-2021 [Section No. 7.2.5.6.7]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
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Street Address:
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Submittal Date: Mon May 17 15:02:11 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: FR-8082-NFPA 5000-2021

Statement: The committee agreed with the submitter regarding the change in gypsum terminology. Further, the committee updated the requirements of (2) to include both (a) and (b) to be utilized, as well as removing the section references to the AWC documents (while leaving in the reference to the AWC documents). These changes are intended to provide clarity when utilizing this section of Code.

Public Input No. 17-NFPA 5000-2021 [Section No. 7.2.5.6.1.2]

7.2.5.6.1.2

Type IV construction with mass timber construction elements having fire resistance ratings required for Type II (222) shall be permitted where they comply with all of the following:

(1) The building shall be protected throughout with an approved automatic sprinkler system in accordance with 55.3.1.1(1).

(2) The fire resistance rating of construction elements shall be provided as specified in Chapter 4 of AWC TR10, *Calculating the Fire Resistance of Exposed Wood Members.*

(3) In buildings less than 85 ft (25.9 m) in height, exit enclosures, elevator hoistways, and other shafts shall be permitted to be constructed of mass timber elements.

(4) In buildings greater than 85 ft (25.9 m) but equal to or less than 180 ft (54.9 m) in height, two-thirds of the required fire resistance rating of construction elements for exit enclosures, elevator hoistways, and other shafts shall be provided by gypsum ~~wallboard~~ panels in accordance with Section 4.4.2 of AWC TR10, *Calculating the Fire Resistance of Exposed Wood Members*.

(5) The fire resistance rating of wood connections, including connectors, fasteners, and members, shall be protected from fire exposure for the required fire resistance time in accordance with Section 4.5 of AWC TR10, *Calculating the Fire Resistance of Exposed Wood Members.*

(6) All elements of the exterior wall shall comply with 7.2.5.6.7(1).

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 15-NFPA 5000-2021 [Section No. 7.2.5.4]	
Public Input No. 16-NFPA 5000-2021 [Section No. 7.2.5.6.1.1]	
Public Input No. 18-NFPA 5000-2021 [Section No. 7.2.5.6.7]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
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Submittal Date: Mon May 17 15:04:27 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: FR-8079-NFPA 5000-2021
Statement: The committee agreed with the submitter that changing to industry-standard terminology is appropriate for this Code.

Public Input No. 18-NFPA 5000-2021 [Section No. 7.2.5.6.7]

7.2.5.6.7 Exterior Walls.

Exterior walls shall meet at least one of the following requirements:

(1) In buildings complying with 7.2.5.6.1.1 or 7.2.5.6.1.2, bearing and nonbearing exterior walls shall be constructed with any of the following materials:

(a) Noncombustible material

(b) Limited-combustible material

(c) Mass timber complying with Chapter 45, provided the exterior surface of the mass timber is protected by at least one layer of 5/8 in. (16 mm) ~~Type~~ type X gypsum ~~board~~ panels

(d) Weather-resistive barrier in accordance with Section 37.4

(2) Other exterior walls having a required fire resistance rating of 2 hours or less shall be permitted to be constructed with any of the following materials:

(a) Noncombustible material shall be permitted.

(b) Limited-combustible material shall be permitted.

(c) Fire-retardant-treated wood shall be permitted. Approved fire-retardant-treated wood framing shall be permitted within the assembly of exterior walls having a horizontal separation of not less than 60 in. (1525 mm), provided that the fire resistance rating is maintained and the exposed outer and inner faces of such walls are constructed of limited-combustible or noncombustible materials.

(d) Cross-laminated timber complying with 45.5.7 shall be permitted provided that the exterior surface of the cross-laminated timber is protected by one of the following:

i. Fire-retardant-treated wood not less than 15/32 in. (12 mm) thick

ii. Type X gypsum ~~board~~ panels not less than 5/8 in. (16 mm) thick

iii. Noncombustible material

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 15-NFPA 5000-2021 [Section No. 7.2.5.4]	
Public Input No. 16-NFPA 5000-2021 [Section No. 7.2.5.6.1.1]	
Public Input No. 17-NFPA 5000-2021 [Section No. 7.2.5.6.1.2]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
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Affiliation: the Gypsum Association
Street Address:
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Submittal Date: Mon May 17 15:10:09 EDT 2021

Committee: BLD-BLC

Committee Statement

Resolution: FR-8080-NFPA 5000-2021

Statement: The committee agreed with the submitter that changing to industry-standard terminology is appropriate for this Code.

Public Input No. 76-NFPA 5000-2021 [Section No. 8.2.1.1]

8.2.1.1*

The fire resistance ratings of structural elements and building assemblies shall be determined in accordance with the prescriptive requirements of 8.2.2 based on the test procedures set forth in ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, or UL 263, *Fire Tests of Building Construction and Materials*, ~~or other approved test methods or~~ or analytical methods in accordance with 8.2.3, except as required in 8 . 2.1.2 .

8.2.1.2

Where the potential fire exposure is from a hydrocarbon fuel fire, the fire resistance rating of assemblies shall be determined in accordance with ASTM E1529, *Standard Test Methods for Determining Effects of Large Hydrocarbon Pool Fires on Structural Members and Assemblies* or with UL 1709, *Standard for Rapid Rise Fire Tests of Protection Materials for Structural Steel.*

(Also add ASTM E1529 Standard Test Methods for Determining Effects of Large Hydrocarbon Pool Fires on Structural Members and Assemblies. 2016e1 into section 2 on referenced ASTM standards and UL 1709, Standard for Rapid Rise Fire Tests of Protection Materials for Structural Steel, into the section on referenced UL standards)

(Also renumber section 8.2.1.2 and 8.2.1.3 as sections 8.2.1.3 and 8.2.1.4)

Statement of Problem and Substantiation for Public Input

It is not safe to allow "other approved tests" because there is no guarantee that they will be equivalent in terms of fire safety to ASTM E119. The annex note to 8.2.1.1 is critical and is being proposed as a new mandatory section. When hydrocarbon fuel fires are potentially involved, the use of ASTM E1529 is the appropriate one and not ASTM E119. Adding this new section makes it clear that ASTM E1529 is an approved test to be used for such cases.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Wed May 26 15:36:17 EDT 2021
Committee: BLD-FIR

Committee Statement

Resolution: The proponent provided no technical justification that the current requirements of ASTM E119 do not provide a reasonable fire performance criteria. Adequate substantiation had not been provided to include all hydrocarbon fuel fires. The removal of the provisions for other approved methods would not result in a technical change, as other approved methods would be permitted by other sections, including 1.4.

Public Input No. 77-NFPA 5000-2021 [Section No. 8.2.3.2]

8.2.3.2* Calculations.

8.2.3.2.1*

Where calculations are used to establish the fire resistance rating of structural elements or assemblies, they shall be permitted to be performed in accordance with ASCE/SFPE 29, *Standard Calculation Methods for Structural Fire Protection*.

8.2.3.2.2

Where calculations are used to establish the fire resistance rating of concrete or masonry elements or assemblies, the provisions of ACI 216.1, *Code Requirements for Determining Fire Resistance of Concrete and Masonry Construction Assemblies,* shall be permitted to be used.

8.2.3.2.3

Extension of fire resistance rating data based on results of tests conducted in accordance with ASTM E119 or UL 263 shall be permitted to be conducted by using the methodology of *ASTM E2032, Standard Guide for Extension of Data From Fire Resistance Tests Conducted in Accordance with ASTM E 119* .

(Also, add ASTM E2032 (2009, reapproved 2017) into section 2 on referenced ASTM standards)

Statement of Problem and Substantiation for Public Input

The most common way in which fire resistance ratings are calculated is via extension of data using the Harmathy methods contained in ASTM E2032. This standard is called a guide but is written in mandatory language and contains the best procedure for calculating fire resistance ratings.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 15:41:43 EDT 2021
Committee: BLD-FIR

Committee Statement

Resolution: This public input is more of a performance-based approach. The use of performance-based design is already permitted through the use of Chapter 5 or 1.4.

Public Input No. 25-NFPA 5000-2021 [Section No. 8.3.3.7.4.3]

8.3.3.7.4.3

Fire walls shall be permitted to terminate at the roof sheathing or deck, provided that all of the following criteria are met:

(1) The underside of the roof sheathing or deck is protected with ⅝ in. (16 mm) ~~Type~~ type X gypsum ~~board~~ panels applied directly beneath the underside of the roof sheathing or deck.

(2) The ~~Type~~ type X gypsum ~~board~~ panel is supported by minimum 2 in. (51 mm) ledgers attached to the sides of the roof framing members.

(3) The ~~Type~~ type X gypsum ~~board~~ panel is applied on both sides of the fire wall for a minimum distance of 48 in. (1220 mm) on both sides of the fire wall.

(4) Openings in the roof are not located within 48 in. (1220 mm) of the fire wall.

(5) The roof is covered with a minimum Class C roof covering. [**221:**6.6.5.3]

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 26-NFPA 5000-2021 [Section No. 8.14.1.3]	
Public Input No. 27-NFPA 5000-2021 [Section No. 8.14.2.4]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 18 10:41:13 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: FR-8081-NFPA 5000-2021
Statement: The committee agreed with the submitter that changing to industry-standard terminology is appropriate for this Code.

Public Input No. 141-NFPA 5000-2021 [New Section after 8.8.2.1]

8.8.2.1.1

The annular space created by the penetration of water-filled fire sprinkler piping shall be filled using material prevents the passage of flame and hot gases sufficient to ignite cotton waste where subjected to ASTM E119 or UL 263 time temperature fire conditions under a positive pressure differential of not less than 0.01 inch of water (3 Pa) at the location of the penetration for the time period equivalent to the fire-resistance rating of the construction penetrated.

Statement of Problem and Substantiation for Public Input

Listed fire sprinkler piping is ignition resistant and will not sustain combustion. Allowing common fire sprinkler piping to protect multiple units
in a townhouse can significantly reduce installation costs.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 145-NFPA 5000-2021 [Section No. 8.8.2.1]	

Submitter Information Verification

Submitter Full Name: Andrew Bevis
Organization: National Fire Sprinkler Associ
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 01 15:36:36 EDT 2021
Committee: BLD-FIR

Committee Statement

Resolution: This PI is not in the correct section. Additionally, the use of a nonlisted fire stop system could lead to a lot of confusion for installers and AHJs. There are already standards and firestop systems available to achieve this goal.

Public Input No. 145-NFPA 5000-2021 [Section No. 8.8.2.1]

8.8.2.1

~~Penetrations~~ Except as provided in 8.8.2.1.1, penetrations for cables, cable trays, conduits, pipes, tubes, combustion vents and exhaust vents, wires, and similar items to accommodate electrical, mechanical, plumbing, and communications systems that pass through a wall, floor, or floor/ceiling assembly constructed as a fire barrier shall be protected by a firestop system or device.

Statement of Problem and Substantiation for Public Input

Listed fire sprinkler piping is ignition resistant and will not sustain combustion. Allowing common fire sprinkler piping to protect multiple units
in a townhouse can significantly reduce installation costs, and the IBC now allows penetration of townhouse separation walls in any townhouse that
does not exceed the height and area limits.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 141-NFPA 5000-2021 [New Section after 8.8.2.1]	

Submitter Information Verification

Submitter Full Name: Andrew Bevis
Organization: National Fire Sprinkler Associ
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 01 15:52:28 EDT 2021
Committee: BLD-FIR

Committee Statement

Resolution: There is no section 8.8.2.1.1, see previous action on PI-141.

Public Input No. 26-NFPA 5000-2021 [Section No. 8.14.1.3]

8.14.1.3

Draftstopping materials shall be not less than ½ in. (13 mm) thick gypsum ~~board~~ panel , ¹⁵⁄₃₂ in. (12 mm) thick wood structural panel, or other approved materials that are adequately supported.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 25-NFPA 5000-2021 [Section No. 8.3.3.7.4.3]	
Public Input No. 27-NFPA 5000-2021 [Section No. 8.14.2.4]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 18 10:42:59 EDT 2021
Committee: BLD-FIR

Committee Statement

Resolution: FR-8002-NFPA 5000-2021
Statement: The change in terminology will make NFPA 101 consistent with industry terminology.

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Public Input No. 27-NFPA 5000-2021 [Section No. 8.14.2.4]

8.14.2.4

Fireblocks shall consist of one of the following:

(1) Nominal 2 in. (51 mm) lumber of two thicknesses of nominal 1 in. (25 mm) lumber with broken lap joints; one thickness of 23/32 in. (18 mm) wood structural panel with joints backed by 23/32 in. (18 mm) wood structural panel; or one thickness of ¾ in. (19 mm) particleboard with joints backed by ¾ in. (19 mm) particleboard

(2) Gypsum ~~board~~ panel , cement fiberboard, batts or blankets of mineral wool or glass fiber, or other approved materials that are capable of resisting the free passage of fire and smoke within the concealed space installed in such a manner as to be securely retained in place

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 25-NFPA 5000-2021 [Section No. 8.3.3.7.4.3]	
Public Input No. 26-NFPA 5000-2021 [Section No. 8.14.1.3]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 18 10:43:57 EDT 2021
Committee: BLD-FIR

Committee Statement

Resolution: FR-8001-NFPA 5000-2021
Statement: The change in terminology will make NFPA 101 consistent with industry terminology.

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Public Input No. 62-NFPA 5000-2021 [Section No. 10.2.3.6]

10.2.3.6 Fire-Retardant Coatings.

10.2.3.6.1

Field applied fire-retardant coatings shall not be used to obtain compliance with the interior finish requirements of this *Code*.

10.2.3.6.2*

Surfaces of walls, partitions, columns, and ceilings shall be permitted to be finished with factory-applied fire-retardant-coated products that have been listed and labeled to demonstrate compliance with the requirements of ASTM E2768, *Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 Min Tunnel Test)*, on the coated surface.

10.2.3.6.3

Factory-applied fire-retardant-coated products shall possess the desired degree of permanency and shall be maintained to retain the effectiveness of the treatment under the service conditions encountered in actual use.

10.2.6.4

A listed factory-applied fire-retardant-coated product shall not be permitted to be coated over with any material.

Statement of Problem and Substantiation for Public Input

NFPA 703 explains that overcoats applied to fire retardant coatings must be tested as a system with the coating to ensure that the appropriate fire performance is being exhibited by the system. Since only listed factory applied coated products are permitted in nee construction, the application of an overcoat of any kind cannot be accepted.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 24 19:42:31 EDT 2021
Committee: BLD-INT

Committee Statement

Resolution: FR-8058-NFPA 5000-2021
Statement: NFPA 703 explains that overcoats applied to fire retardant coatings must be tested as a system with the coating to ensure that the appropriate fire performance is being exhibited by the system. Since only listed factory applied coated products are permitted in nee construction, the application of an overcoat of any kind cannot be accepted.

Public Input No. 96-NFPA 5000-2021 [Sections 11.2.12.2.5, 11.2.12.2.6]

Sections 11.2.12.2.5, 11.2.12.2.6

11.2.12.2.5

The area of refuge shall be provided with a two-way communication system for communication between the area of refuge and a central control point.

11.2.12.2.6

Two-way communication systems shall be listed as complying with UL 2525 and installed in accordance with NFPA 72.

11.2.12.2.7

The door to the stair enclosure or the elevator door and the associated portion of the area of refuge that the stair enclosure door or elevator door serves shall be identified by signage. *(See 11.2.12.3.5.)*

11.2.12.2.6 8 *

Instructions for summoning assistance, via the two-way communication system, and written identification of the area of refuge location shall be posted adjacent to the two-way communication system.

Statement of Problem and Substantiation for Public Input

This Public Input seeks to require two-way communication systems to comply with the applicable product listing standard and the installation standard. Two-way communication systems are intended to allow occupants in need of assistance to evacuate a building to areas of safety. These systems must work correctly when they are needed in an emergency condition.

UL 2525 is a new Product Standard for products intended to be used in combination with other devices to form a rescue assistance two-way emergency communication system. NFPA 72 within Chapter 24 has the requirements for installation of these systems including main panels, remote panels, remote call stations, pathway integrity and backup power.

Submitter Information Verification

Submitter Full Name: Megan Hayes
Organization: Nema
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 27 15:07:16 EDT 2021
Committee: BLD-MEA

Committee Statement

Resolution: CI-8009-NFPA 5000-2021
Statement: This committee input seeks to require newly installed two-way communication systems to comply with the applicable product listing standard. Two-way communication systems are intended to allow occupants in need of assistance to evacuate a building to areas of safety. These systems must work correctly when they are needed in an emergency condition. UL 2525 is a new Product Standard for products intended to be used in combination with other devices to form a rescue assistance two-way emergency communication system. The CI is intended to solicit public comments and give the committee the opportunity to review the new product standard.

Public Input No. 10-NFPA 5000-2021 [Section No. 11.8.1.2.2]

11.8.1.2.2*

Unless prohibited by Chapters 15 through 31, automatic lighting control devices shall be permitted to temporarily turn off the illumination within the means of egress, provided that each lighting control device complies with all of the following:

(1) The lighting control device is listed.

(2) The lighting control device is equipped to automatically energize ~~the controlled lights~~ any controlled lights required for compliance with Section 11.9 (Emergency Lighting) upon loss of normal power and is evaluated for this purpose.

(3) Illumination timers are provided and are set for a minimum 15-minute duration.

(4) The lighting control device is activated by any occupant movement in the area served by the lighting units.

(5) The lighting control device is activated by activation of the building fire alarm system, if provided.

(6) The lighting control device does not turn off any lights relied upon for activation of photoluminescent exit signs or path markers.

(7) The lighting control device does not turn off any battery-equipped emergency luminaires, unit equipment, or exit signs.

Statement of Problem and Substantiation for Public Input

The text of 11.8.1.2.2 (2) is overly broad. Only luminaires that are designated for emergency lighting should be required to be automatically energized upon loss of normal power.

Controls for emergency lighting should be listed to UL 924. A revision to specify this is separately being submitted under 11.9.2.5.

Similar PIs have been submitted for NFPA 101.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 11-NFPA 5000-2021 [Section No. 11.9.2.5]	PI 11 adds emergency lighting control devices to the list of emergency lighting equipment that should be listed per UL 924.
Public Input No. 11-NFPA 5000-2021 [Section No. 11.9.2.5]	

Submitter Information Verification

Submitter Full Name: Michael Shulman
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 06 15:43:06 EDT 2021
Committee: BLD-MEA

Committee Statement

Resolution: FR-8010-NFPA 5000-2021

Statement: The text of 11.8.1.2.2 (2) is overly broad. Only luminaires that are designated for emergency lighting should be required to be automatically energized upon loss of normal power.

Public Input No. 11-NFPA 5000-2021 [Section No. 11.9.2.5]

11.9.2.5

Unit equipment ~~and battery~~ , battery-equipped emergency luminaires, battery systems for emergency luminaires, and emergency lighting control devices shall be listed to UL 924, *Emergency Lighting and Power Equipment*.

Statement of Problem and Substantiation for Public Input

Emergency luminaires containing their own emergency battery pack require listing per UL 924 to validate both proper functionality and battery capacity. Emergency lighting control devices can take several different forms and also should be listed to UL 924 to validate their intended functionality. Similar specifications are now present (or pending) in NFPA 70 (NEC) Article 700.

A similar PI has been submitted for NFPA 101.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 10-NFPA 5000-2021 [Section No. 11.8.1.2.2]	PI 10 provides one example where an emergency lighting control device should be listed.
Public Input No. 10-NFPA 5000-2021 [Section No. 11.8.1.2.2]	

Submitter Information Verification

Submitter Full Name: Michael Shulman
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 06 15:47:07 EDT 2021
Committee: BLD-MEA

Committee Statement

Resolution: FR-8011-NFPA 5000-2021
Statement: Emergency luminaires containing their own emergency battery pack require listing per UL 924 to validate both proper functionality and battery capacity. Emergency lighting control devices can take several different forms and also should be listed to UL 924 to validate their intended functionality. Similar specifications are now present (or pending) in NFPA 70 (NEC) Article 700.

Public Input No. 98-NFPA 5000-2021 [Section No. 11.14.1]

11.14.1 General.

11.14.1.1*

Where passenger elevators for general public use are permitted to be used for occupant evacuation prior to Phase I Emergency Recall Operation mandated by the Firefighters' Emergency Operation provisions of ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators*, the elevator system shall also comply with Section 11.14, except as otherwise permitted by 11.14.1.2.

11.14.1.2

The provisions of Section 11.14 shall not apply where the limited or supervised use of elevators for evacuation is part of a formal or informal evacuation strategy, including the relocation or evacuation of patients in health care occupancies and the relocation ~~or evacuation~~ of ~~occupants with disabilities in other occupancies~~ occupancies that require a high level of supervision .

11.14.1.3*

The occupant evacuation elevators shall be in accordance with the occupant evacuation operation (OEO) requirements of ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators,* and the building emergency plan required by 11.14.3.1.

11.14.1.4

Occupant evacuation elevators in accordance with Section 11.14 shall not be permitted to satisfy requirements of this *Code* applicable to the following:

(1) Number of means of egress

(2) Capacity of means of egress

(3) Arrangement of means of egress

Statement of Problem and Substantiation for Public Input

Occupant Evacuation Elevators are designed to be used by occupants who use wheelchairs or may have other ambulatory limitations. The current language would limit them using OEE. The proposed language would only limit use if someone require a high level of supervision (such as a nursing home, memory care facility, penal institution, etc.).

Submitter Information Verification

Submitter Full Name: Kevin Brinkman
Organization: National Elevator Industry, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 28 11:45:32 EDT 2021
Committee: BLD-MEA

Committee Statement

Resolution: The revision as submitted is unclear. The proponent is encouraged to submit a public comment with clarification as to whom the exemption would apply and whether the reference to evacuation is intended to be deleted.

Public Input No. 97-NFPA 5000-2021 [Section No. 11.14.3.3]

11.14.3.3 Conditions for Safe Continued Operations.

11.14.3.3.1

Conditions necessary for the continued safe operation of the occupant evacuation elevators and the associated elevator lobbies and elevator machine rooms shall be continuously monitored and displayed at the building fire command center ~~by a standard emergency service interface system meeting the requirements of *NFPA 72* , and NEMA SB 30, *Fire Service Annunciator and Interface*~~ on a building fire alarm system annunciator(s), or other annunciator(s) as approved by the authority having jurisdiction .

11.14.3.3.2

The monitoring and display required by 11.14.3.3.1 shall include all of the following:

(1) Floor location of each elevator car

(2) Direction of travel of each elevator car

(3) Status of each elevator car with respect to whether it is occupied

(4) Status of normal power to the elevator equipment, elevator controller cooling equipment, and elevator machine room ventilation and cooling equipment

(5) Status of standby or emergency power system that provides backup power to the elevator equipment, elevator controller cooling equipment, and elevator machine/control room or machinery/control space ventilation and cooling equipment

(6) Activation of any fire alarm–initiating device in any elevator lobby, elevator machine/control room or machinery/control space, or elevator hoistway

Statement of Problem and Substantiation for Public Input

The 3SB30 standard has been withdrawn and NFPA 72 has been revised accordingly.

Submitter Information Verification

Submitter Full Name: Megan Hayes
Organization: Nema
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 27 15:12:19 EDT 2021
Committee: BLD-MEA

Committee Statement

Resolution: FR-8012-NFPA 5000-2021
Statement: The revision responds to PI-97 by deleting the references to NEMA SB 30 and NFPA 72. The proposed references to annunciators in PI-97 are not necessary.

Public Input No. 99-NFPA 5000-2021 [Section No. 11.14.6]

11.14.6 Elevator Installation.

11.14.6.1

Except as modified by 11.14.6.2 and 11.14.6.3, occupant evacuation elevators shall be installed in accordance with ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators*, including the provisions for Occupant Evacuation Operation, as required by 11.14.1.3.

11.14.6.2*

Shunt breakers shall not be installed on elevator systems used for occupant evacuation.

11.14.6.3

Occupant evacuation elevators shall be limited to electric passenger elevators that are in noncombustible hoistways and for which the car enclosure materials meet the requirements of ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators*.

Statement of Problem and Substantiation for Public Input

Occupant evacuation elevators should be limited to electric elevators. Hydraulic elevators are limited to low-rise applications where occupant evacuation is not typically used and hydraulic elevators are currently required to have sprinklers in the pit per NFPA 13.

Submitter Information Verification

Submitter Full Name: Kevin Brinkman
Organization: National Elevator Industry, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 28 11:48:09 EDT 2021
Committee: BLD-MEA

Committee Statement

Resolution: This code and NFPA 13 already address how the use of a hydraulic elevator could be incorporated into the design of occupant evacuation elevators where required. This proposal might be overly restrictive on the use of hydraulic elevators where these types of elevators would be permitted to be used as occupant evacuation elevators.

Public Input No. 100-NFPA 5000-2021 [Section No. 11.14.8]

11.14.8 Electrical Power and Control Wiring.

11.14.8.1

The following features associated with occupant evacuation elevators shall be supplied by both normal power and Type 60, Class 2, Level 1 standby power:

(1) Elevator equipment

(2) Ventilation and cooling equipment for elevator machine/control rooms and machinery/control spaces

(3) Elevator car lighting

11.14.8.2

Wires or cables that are located outside elevator hoistways and machine/control rooms and machinery/control spaces and elevator lobbies , and that provide normal and standby power, control signals, communication with the cars, lighting, heating, air-conditioning, ventilation, and fire detecting systems to occupant evacuation elevators shall be protected by one of the following means, except as otherwise provided by 11.14.8.3:

(1) The wiring shall utilize Type CI cable with a minimum 2-hour fire resistance rating.

(2) The wiring shall be enclosed in minimum 2-hour fire resistance construction.

(3) The wiring shall be wiring that is approved as providing a 2-hour performance alternative.

11.14.8.3*

Control signaling wiring and cables that do not serve Phase II emergency in-car service shall not be required to be protected.

Statement of Problem and Substantiation for Public Input

Elevator lobbies for OEE are already required to have a 2-hour fire resistance rating so the additional protection for the wiring in the lobby is not necessary.

Submitter Information Verification

Submitter Full Name: Kevin Brinkman
Organization: National Elevator Industry, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 28 11:50:46 EDT 2021
Committee: BLD-MEA

Committee Statement

Resolution: NFPA 5000 does not require 2-hr elevator lobby enclosures.

Public Input No. 101-NFPA 5000-2021 [Section No. 11.14.9]

11.14.9 Occupant Evacuation Shaft System.

11.14.9.1

Occupant evacuation elevators shall be provided with an occupant evacuation shaft system consisting of all of the following:

(1) Elevator hoistway

(2) Enclosed elevator lobby outside the bank or group of hoistway doors on each floor served by the elevators, except that elevator lobbies are not required to be enclosed where located either on the street floor or on the level of exit discharge

(3) Enclosed exit stair with doors to all floors, at and above grade level, served by the elevators

Exception: Elevators that only service an open parking garage and the lobby of the building shall not be required to provide access to exit stairs.

11.14.9.2* Elevator Lobby Size.

11.14.9.2.1

Occupant evacuation elevator lobbies shall have minimum clear floor area, except as otherwise provided in 11.14.9.2.2, as follows:

(1) The elevator lobby clear floor area shall accommodate, at 3 ft^2 (0.28 m^2) per person, a minimum of 25 percent of the occupant load of the floor area served by the lobby.

(2) The elevator lobby clear floor area also shall accommodate one wheelchair space of 30 in. × 48 in. (760 mm × 1220 mm) for each 50 persons, or portion thereof, of the occupant load of the floor area served by the lobby.

11.14.9.2.2

The size of lobbies serving multiple banks of elevators shall be exempt from the requirement of 11.14.9.2.1(1) provided that the area of such lobbies is approved on an individual basis and is consistent with the building's emergency plan.

11.14.9.3

Access to the exit stair required by 11.14.9.1(3) shall be directly from the enclosed elevator lobby on each floor.

11.14.9.4

The occupant evacuation shaft system shall be enclosed and separated from the remainder of the building by walls complying with the following:

(1) The shaft system walls shall be smoke barriers in accordance with Section 8.11.

(2) The shaft system walls separating the elevator lobby from the remainder of the building shall have a minimum 1-hour fire resistance rating and minimum ¾-hour fire-protection-rated opening protectives.

(3) The shaft system walls separating the elevator hoistway from the remainder of the building shall have a minimum 2-hour fire resistance rating and minimum 1½-hour fire-protection-rated opening protectives.

(4) The shaft system walls separating the enclosed exit stair from the remainder of the building shall have a minimum 2-hour fire resistance rating and minimum 1½-hour fire-protection-rated opening protectives.

11.14.9.5

Occupant evacuation shaft system enclosures shall be constructed to provide a minimum classification of Level 2 in accordance with ASTM C1629/C1629M, *Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels*.

11.14.9.6*

An approved method to prevent water from infiltrating into the hoistway enclosure from the operation of the automatic sprinkler system outside the enclosed occupant evacuation elevator lobby shall be provided.

11.14.9.7

Occupant evacuation shaft system elevator lobby doors, other than doors to the hoistway, exit stair enclosure, control room, or control space, shall have all of the following features:

(1) The doors shall have a fire protection rating of not less than ¾ hour.

(2) The doors shall be smoke-leakage-rated assemblies in accordance with NFPA 105.

(3) The doors shall have an automatic positioning bottom seal to resist the passage of water at floor level from outside the shaft system.

11.14.9.8

Occupant evacuation shaft system elevator lobby doors shall have the following features:

(1) Each door, other than doors to the hoistway, exit stair enclosure, control room, or control space, shall be automatic-closing in accordance with 11.2.1.8.2, as modified by 11.14.9.8(2).

(2) In addition to the automatic-closing means addressed by 11.2.1.8.2, the elevator lobby door on any floor shall also close in response to any alarm signal initiated on that floor.

(3) Each door shall be provided with a vision panel arranged to allow people on either side of the door to view conditions on the other side of the door.

11.14.9.9

Each occupant evacuation shaft system exit stair enclosure door shall be provided with a vision panel arranged to allow people on either side of the door to view conditions on the other side of the door.

Statement of Problem and Substantiation for Public Input

There is no need to have access to exit stairs in an open parking garage or in the lobby of the building that is at the exit discharge level.

Submitter Information Verification

Submitter Full Name: Kevin Brinkman
Organization: National Elevator Industry, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 28 11:53:10 EDT 2021
Committee: BLD-MEA

Committee Statement

Resolution: Exceptions are not permitted by the NFPA Manual of Style. The submitter's intent is not clear. The specified protection is needed for elevators that serve as an occupant evacuation elevator system in accordance with Section 11.14.

Public Input No. 115-NFPA 5000-2021 [New Section after 12.6.4.1]

12.6.4.1.1 * Power-operated doors at public entrances. Each public entrance required to comply with ICC/ANSI A117.1 Section 404 in accordance with 12.6.4.1 in buildings with occupancies and occupant load exceeding the threshold of the identified occupancies of Table 12.6.4.1.1 shall be provided with a minimum of one power-operated door or a low-energy power-operated door.

Exception No. 1: In a building with mixed occupancies or separated occupancies, the weighted average of each occupancy identified in Table 12.6.4.1.1 shall be used in the threshold determination.

Exception No. 2: Where the occupant load of an individual tenant space does not exceed the threshold of the occupancies in Table 12.6.4.1.1, power-operated doors are not required at public entrances to that individual tenant space

12.6.4.1.1.1 * Where a public entrance required to comply with 12.6.4.1.1 has a vestibule or other arrangement with two doors in series, a minimum of one set of two doors in series shall comply with 12.6.4.1.1.

Table 12.6.4.1.1 Power-Operated Doors at Public Entrances

Occupancy	Occupant Load Threshold
Assembly	300
Business, Mercantile, Hotel	500

A.12.6.4.1.1

Exception No. 1, for mixed occupancies and separated occupancies, requires using a weighted average approach for determining if the threshold is exceeded. This is best illustrated with an example:

Assume a building has a hotel occupancy with an occupant load of 350, an assembly occupancy with an occupant load of 50, and a mercantile occupancy with an occupant load of 75. The weighted average calculation is: 350/500 + 50/300 + 75/500 = 1.02. Since the weighted average is greater than 1.0, this building exceeds the occupant load threshold and would be required to comply with 12.6.4.1.1.

A.12.6.4.1.1.1

If the public entrance to the building has two doors in series, as typically found in a vestibule, the requirements of 12.6.4.1.1 would be applicable. If the vestibule has just two doors, both of these doors in series would need to be power operated. If the vestibule has more than two doors, then a minimum of one door into the vestibule would need to be power operated, and the door out of the vestibule most closely aligned would also need to be power operated.

Additional Proposed Changes

File Name	Description Approved
2024_NFPA_5000_Power_Operated_Doors_at_Accessible_Public_Entrances_Proposal_20210531.pdf	BHMA Proposal for 2024 NFPA 5000 for Power-Operated Doors at Accessible Public Entrances

Statement of Problem and Substantiation for Public Input

Requiring at least one power operated door at public entrances required to be accessible in buildings of the

occupancies identified in the proposal, and where the building's occupant load exceeds the proposed threshold is prudent for these reasons:
1. Enhances accessibility. Compared to manual doors, power operated doors improve accessibility at building entrances.
2. Considers transient use. The criteria in the proposed Table addresses the public's use of entrances and need no special knowledge, skill, or ability to enter buildings. The occupancies included in the Table experience transient use.
3. Addresses a public need. The occupancies identified are associated with existing needs for power operated doors.
4. Focuses on public entrances. The Table applies where the public is most likely to access buildings. Which public entrance(s) to choose for an power operated door if multiple entrances are required to be accessible is left to the building designer.
5. Occupancies involved are those most applicable to the public. The population requiring accessibility commonly needs accommodations to enter assembly, business, mercantile, and hotel buildings as part of their everyday life. No code requirement for power operated doors means decreased accessibility convenience.
6. No disproportional economic burden. The thresholds have been chosen so as not to be a requirement for smaller occupancies such as small assembly buildings or strip mall businesses.
7. Addresses statistical need for accessibility. The thresholds are based on an assumption that a minimum of 2% of the population will be in need of accessibility at any given time for the specified occupancies. For an occupant load of 300, this means that six people will have the need that an power operated door will provide. This may be an underestimate; the US CDC estimates 13.7% of U.S. adults have serious difficulty walking or climbing stairs. Source: https://www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html
8. Enhances public safety. Power operated doors are regulated by ANSI/BHMA safety standards intended to prevent people from coming in contact with moving doors. NFPA 5000 requires power operated doors to comply with the applicable ANSI/BHMA standard.
9. Favorably increases facility usage. Those with accessibility needs are less likely to choose to use a building without a power operated door at the public entrance, therefore resulting in reduced institutional, social, and economic benefits to entities operating within a facility.
10. Occupant load thresholds have related code precedence. The justification of minimum occupant load uses Risk Category and minimum number of exits as starting points. Following is an explanation of how the threshold numbers have been arrived at for each occupancy in the Table.
a. Assembly occupancy: Table 35.3.1, Risk Category III. Buildings and other structures where more than 300 people congregate in one area.
b. Business, Mercantile, and Hotel occupancies: From 11.4.1.2(1), the minimum number of means of egress from any story shall be not less than three for an occupant load more than 500 but not more than 1000. 11.4.1.2(2) requires not less than four means of egress where the occupant load is more than 1000.
11. Alleviates concerns about maximum manual force required to operate a door at a public entrance. Although NFPA 5000 regulates the maximum forces to operate a door, operating a manual door is a concern for the accessibility community. Power operated doors require no force to operate.
12. Alleviates concerns about manual force variations. Wind pressures and internal building stack pressures affect manual operation of entrance doors.
13. More than a "best practice" requirement. The proposed requirements address a need, as opposed to a "best practice", because power operated doors encourage people to use facilities.
The proposed additions to Annex A help to explain the mandatory requirements proposed.

Submitter Information Verification

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Submittal Date: Tue Jun 01 11:17:54 EDT 2021
Committee: BLD-BSY

Committee Statement

Resolution: FR-8029-NFPA 5000-2021
Statement: The committee accepted the submitter's public input and made modifications to refine the language including the exceptions as provided. The committee views this change as an enhancement to accessibility for building occupants. The committee welcomes Public Comment on this revision during

the Second Draft stage.

12.6 Accessible Routes.
[**2010 ADA STANDARDS (DOJ):** 206]

12.6.4 Entrances.
Entrances shall be provided in accordance with 12.6.4. Entrance doors, doorways, and gates shall comply with ICC/ANSI A117.1, Section 404 and shall be on an accessible route complying with ICC/ANSI A117.1, Section 402. [**2010 ADA STANDARDS (DOJ):** 206.4]

*Exception No. 1: Where an alteration includes alterations to an entrance, and the building or facility has another entrance complying with ICC/ANSI A117.1, Section 404 that is on an accessible route, the altered entrance shall not be required to comply with 12.6.4 unless required by 12.2.4. [**2010 ADA STANDARDS (DOJ):** 206.4, Exception 1]*

*Exception No. 2: Where exceptions for alterations to qualified historic buildings or facilities are permitted by 12.2.5, no more than one public entrance shall be required to comply with 12.6.4. Where no public entrance can comply with 12.6.4 under criteria established in 12.2.5, Exception, then either an unlocked entrance not used by the public shall comply with 12.6.4; or a locked entrance complying with 12.6.4 with a notification system or remote monitoring shall be provided. [**2010 ADA STANDARDS (DOJ):** 206.4, Exception 2]*

12.6.4.1 Public Entrances.
In addition to entrances required by 12.6.4.2 through 12.6.4.9, at least 60 percent of all public entrances shall comply with ICC/ANSI A117.1, Section 404. [**2010 ADA STANDARDS (DOJ):** 206.4.1]

12.6.4.1.1* Power-operated doors at public entrances. Each public entrance required to comply with ICC/ANSI A117.1 Section 404 in accordance with 12.6.4.1 in buildings with occupancies and occupant load exceeding the threshold of the identified occupancies of Table 12.6.4.1.1 shall be provided with a minimum of one power-operated door or a low-energy power-operated door.

Exception No. 1: In a building with mixed occupancies or separated occupancies, the weighted average of each occupancy identified in Table 12.6.4.1.1 shall be used in the threshold determination.

Exception No. 2: Where the occupant load of an individual tenant space does not exceed the threshold of the occupancies in Table 12.6.4.1.1, power-operated doors are not required at public entrances to that individual tenant space

12.6.4.1.1.1* Where a public entrance required to comply with 12.6.4.1.1 has a vestibule or other arrangement with two doors in series, a minimum of one set of two doors in series shall comply with 12.6.4.1.1.

Table 12.6.4.1.1 Power-Operated Doors at Public Entrances

Occupancy	Occupant Load Threshold
Assembly	300
Business, Mercantile, Hotel	500

A.12.6.4.1.1

Exception No. 1, for mixed occupancies and separated occupancies, requires using a weighted average approach for determining if the threshold is exceeded. This is best illustrated with an example:

Assume a building has a hotel occupancy with an occupant load of 350, an assembly occupancy with an occupant load of 50, and a mercantile occupancy with an occupant load of 75. The weighted average

calculation is: 350/500 + 50/300 + 75/500 = 1.02. Since the weighted average is greater than 1.0, this building exceeds the occupant load threshold and would be required to comply with 12.6.4.1.1.

A.12.6.4.1.1.1

If the public entrance to the building has two doors in series, as typically found in a vestibule, the requirements of 12.6.4.1.1 would be applicable. If the vestibule has just two doors, both of these doors in series would need to be power operated. If the vestibule has more than two doors, then a minimum of one door into the vestibule would need to be power operated, and the door out of the vestibule most closely aligned would also need to be power operated.

Reason:

Requiring at least one power operated door at public entrances required to be accessible in buildings of the occupancies identified in the proposal, and where the building's occupant load exceeds the proposed threshold is prudent for these reasons:

1. Enhances accessibility. Compared to manual doors, power operated doors improve accessibility at building entrances.
2. Considers transient use. The criteria in the proposed Table addresses the public's use of entrances and need no special knowledge, skill, or ability to enter buildings. The occupancies included in the Table experience transient use.
3. Addresses a public need. The occupancies identified are associated with existing needs for power operated doors.
4. Focuses on public entrances. The Table applies where the public is most likely to access buildings. Which public entrance(s) to choose for an power operated door if multiple entrances are required to be accessible is left to the building designer.
5. Occupancies involved are those most applicable to the public. The population requiring accessibility commonly needs accommodations to enter assembly, business, mercantile, and hotel buildings as part of their everyday life. No code requirement for power operated doors means decreased accessibility convenience.
6. No disproportional economic burden. The thresholds have been chosen so as not to be a requirement for smaller occupancies such as small assembly buildings or strip mall businesses.
7. Addresses statistical need for accessibility. The thresholds are based on an assumption that a minimum of 2% of the population will be in need of accessibility at any given time for the specified occupancies. For an occupant load of 300, this means that six people will have the need that an power operated door will provide. This may be an underestimate; the US CDC estimates 13.7% of U.S. adults have serious difficulty walking or climbing stairs. Source: https://www.cdc.gov/ncbddd/disabilityandhealth/infographic-disability-impacts-all.html
8. Enhances public safety. Power operated doors are regulated by ANSI/BHMA safety standards intended to prevent people from coming in contact with moving doors. NFPA 5000 requires power operated doors to comply with the applicable ANSI/BHMA standard.
9. Favorably increases facility usage. Those with accessibility needs are less likely to choose to use a building without a power operated door at the public entrance, therefore resulting in reduced institutional, social, and economic benefits to entities operating within a facility.
10. Occupant load thresholds have related code precedence. The justification of minimum occupant load uses Risk Category and minimum number of exits as starting points. Following is

an explanation of how the threshold numbers have been arrived at for each occupancy in the Table.

a. Assembly occupancy: Table 35.3.1, Risk Category III. Buildings and other structures where more than 300 people congregate in one area.
b. Business, Mercantile, and Hotel occupancies: From 11.4.1.2(1), the minimum number of means of egress from any story shall be not less than three for an occupant load more than 500 but not more than 1000. 11.4.1.2(2) requires not less than four means of egress where the occupant load is more than 1000.

11. Alleviates concerns about maximum manual force required to operate a door at a public entrance. Although NFPA 5000 regulates the maximum forces to operate a door, operating a manual door is a concern for the accessibility community. Power operated doors require no force to operate.
12. Alleviates concerns about manual force variations. Wind pressures and internal building stack pressures affect manual operation of entrance doors.
13. More than a "best practice" requirement. The proposed requirements address a need, as opposed to a "best practice", because power operated doors encourage people to use facilities.

The proposed additions to Annex A help to explain the mandatory requirements proposed.

Public Input No. 106-NFPA 5000-2021 [New Section after 15.5]

TITLE OF NEW CONTENT

15.5.10 Building Envelope Modifications.

15.5.10.1 Where the building envelope is modified in one or more of the following ways and the building has one or more gas appliances installed, a review of the combustion air supply and venting capability shall be conducted:

(1) The building is modified under a weatherization program.

(2) A building permit is issued for a building addition or exterior building modification.

(3) Three or more window assemblies are replaced.

(4) Three or more storm windows are installed over existing windows.

(5) One or more exterior door and frame assemblies are replaced.

(6) A building air barrier is installed or replaced.

15.5.10.2 Where a building envelope is modified as described in 15.5.10.1, existing gas appliance installations shall be inspected to verify compliance with the provisions of Section 9.3 and Chapter 12 of NFPA 54, National Fuel Gas Code.

15.5.10.3 Where the appliance installation does not comply with Section 9.3 and Chapter 12 of NFPA 54, National Fuel Gas Code, the installation shall be altered as necessary to be in compliance with NFPA 54, National Fuel Gas Code.

Statement of Problem and Substantiation for Public Input

This new section provides requirements to address a problem that has been recognized for some time. Specifically, changes to a building's envelope to conserve energy can make existing gas appliances unsafe. Building envelope changes can result in insufficient air for complete combustion of fuel gas, and can cause chimneys and vents that were operating properly to operate improperly, possibly leading to the introduction of the products of combustion into the building. These conditions can result in a greater production of carbon monoxide.

This problem is addressed in NFPA 54 in paragraph 9.1.22, Existing Appliances. It is important to add these requirements to NFPA 5000 to make those who modify buildings aware of this safety concern and to prevent unsafe conditions resulting from building modifications.

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Submittal Date: Fri May 28 15:09:59 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: The proposed revision, as submitted, would appear to apply only to smaller buildings. For example, where a building contains a curtain wall, it is not clear how the criterion for "three or more window assemblies" would apply. The installation of storm windows would not likely apply to buildings greater than three or four stories in height. The submitter might consider a public comment with revised criteria

to address larger buildings.

Public Input No. 28-NFPA 5000-2021 [Section No. 15.7.3.5.1.1]

15.7.3.5.1.1 Occupancy Change to Higher Risk Category.

Where a change of occupancy classification occurs, the life safety and exits risk category shall be determined in accordance with Table 15.7.3.5.1.1. Where a change of occupancy classification results in a higher risk category (lower number), egress capacity, arrangement of the means of egress, and all elements of the means of egress including, but not limited to, the exit access, exit discharge, occupant load, corridors, doors, enclosures, stairs and ramps, guards and handrails, means of egress doorways, fire escapes, and exit lighting and signs shall comply with the applicable requirements for new construction, and the following provisions also shall apply:

(1) Stairways shall be enclosed in compliance with applicable portions of 15.7.3.6.

(2) Existing stairways, including handrails and guards complying with the requirements of Section 15.6, shall be permitted for continued use subject to approval of the authority having jurisdiction.

(3) Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced shall not be required to comply with the maximum riser height and minimum tread depth requirements.

(4) Existing corridor walls constructed of wood lath and plaster in good condition or ½ in. (13 mm) thick gypsum ~~wallboard~~ panels shall be permitted.

(5) Existing corridor doorways, transoms, and other corridor openings shall comply with the requirements in 15.6.2.1.4.3, 15.6.2.1.4.4, and 15.6.2.1.4.5.

(6) Existing dead-end corridors shall comply with the requirements in 15.6.2.1.5.

(7) An existing operable window with a clear opening area of not less than 5 ft^2 (0.46 m^2), and with a minimum opening height and width of 22 in. (560 mm) and 20 in. (510 mm), respectively, shall be accepted as an egress window.

(8) In a change of occupancy classification from an existing residential or health care occupancy to a residential board and care occupancy, 28 in. (710 mm) doors shall be permitted.

(9) In a change of occupancy classification from an existing residential or health care occupancy to a residential board and care occupancy, winders complying with 11.2.2.2.4 shall be permitted.

Table 15.7.3.5.1.1 Hazard Categories and Classifications — Life Safety and Exits

Relative Hazard	Occupancy Classification
1 (highest hazard)	High hazard contents exceeding the maximum allowable quantities per control area, as set forth in 34.1.3
2	Health care, detention and correctional, residential board and care
3	Assembly, educational, day care, ambulatory health care, residential, mercantile, business, industrial, storage
4 (lowest hazard)	Industrial and storage occupancies with low hazard contents

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 29-NFPA 5000-2021 [Section No. 15.7.3.8.1.5]	

Submitter Information Verification

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Submittal Date: Tue May 18 10:49:30 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: FR-8048-NFPA 5000-2021

Statement: The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several revisions to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

The revision also breaks the two requirements into two parts, (A) and (B), in accordance with the Manual of Style. (Underlined text next to (A) and (B) is NOT new.)

Public Input No. 29-NFPA 5000-2021 [Section No. 15.7.3.8.1.5]

15.7.3.8.1.5

Where the fire barrier walls are required to have a 1-hour fire resistance rating, existing wood lath and plaster in good condition or existing stud wall clad in ½ in. (13 mm) thick gypsum ~~wallboard~~ panels or other equivalent assemblies shall be permitted.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 28-NFPA 5000-2021 [Section No. 15.7.3.5.1.1]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
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Submittal Date: Tue May 18 10:54:07 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: FR-8049-NFPA 5000-2021

Statement: The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several revisions to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Public Input No. 139-NFPA 5000-2021 [Section No. 16.3.5]

16.3.5 Extinguishment Requirements.

16.3.5.1 Sprinkler Systems.

16.3.5.1.1

The following assembly occupancies shall be protected throughout by an approved, ~~electrically supervised~~ automatic sprinkler system in accordance with 55.3.1.1(1) and electrically supervised in accordance with 55.3.2 :

(1) Dance halls

(2) Discotheques

(3) Nightclubs

(4) Bars

(5) Restaurants

(6) Assembly occupancies with festival seating

16.3.5.1.2

Any building containing one or more assembly occupancies where the aggregate occupant load of the assembly occupancies exceeds 300 shall be protected by an approved, electrically supervised automatic sprinkler system installed in accordance with Section 55.3 as follows:

(1) Throughout the story containing the assembly occupancy

(2) Throughout all stories below the story containing the assembly occupancy

(3) In the case of an assembly occupancy located below the level of exit discharge, throughout all stories intervening between that story and the level of exit discharge, including the level of exit discharge

16.3.5.1.3

The requirements of 16.3.5.1.2 shall not apply to the following:

(1)* Assembly occupancies consisting of a single multipurpose room of less than 12,000 ft^2 (1100 m^2) that are not used for exhibition or display and are not part of a multiple occupancy protected as a mixed occupancy

(2) Gymnasiums, skating rinks, and swimming pools used exclusively for participant sports with no audience facilities for more than 300 persons

(3)* Locations in stadia and arenas as follows:

(4) Over the floor area used for contests, performances, or entertainment, provided that the roof construction is more than 50 ft (15 m) above the floor level and use is restricted to low fire hazard uses

(5) Over the seating areas, provided that use is restricted to low fire hazard uses

(6) Over open-air concourses where an approved engineering analysis substantiates the ineffectiveness of sprinkler protection due to building height and combustible loading

(7) Areas in unenclosed stadia and arenas as follows:

(8) Press boxes of less than 1000 ft^2 (93 m^2)

(9) Storage facilities of less than 1000 ft^2 (93 m^2) where enclosed with not less than 1-hour fire-resistance-rated construction

(10) Enclosed areas underneath grandstands that comply with 16.4.10.5

16.3.5.1.4 ~~–~~

~~Where another provision of this chapter requires an automatic sprinkler system to be electrically supervised, the sprinkler system shall be electrically supervised in accordance with~~ 55.3.2 ~~.~~

~~16.3. 5.1.5~~

High-rise buildings shall comply with 16.4.5.

16.3.5.1.6

Where required by Section 7.4, buildings containing assembly occupancies shall be protected by an approved,~~-~~ ~~electrically supervised~~ _ automatic sprinkler system in accordance with Section 55.3. 1 and electrically supervised in accordance with 55.3.2 .

16.3.5.2 Standpipes.

16.3.5.2.1

Class I standpipe systems shall be provided in buildings four or more stories in height, or having four or more basement levels, as specified in 55.4.1.

16.3.5.2.2

Class I standpipe systems shall be provided in buildings where at least one occupiable level is more than 30 ft (9.1 m) above or below the level of fire department access.

16.3.5.2.3

Class I standpipe systems shall be provided in buildings not protected throughout by an approved, electrically supervised sprinkler system in accordance with Section 55.3 where an occupiable area is more than 150 ft (45 m) from the closest point of fire department entry into the building.

16.3.5.3 Portable Fire Extinguishers.

Portable fire extinguishers shall be installed in assembly occupancies in accordance with Section 55.6, unless otherwise permitted by one of the following:

(1) The requirement of 16.3.5.3 shall not apply to seating areas.

(2) The requirement of 16.3.5.3 shall not apply to floor areas used for contests, performances, or entertainment.

(3) The requirement of 16.3.5.3 shall not apply to outside assembly occupancy areas.

(4) Portable extinguishers shall be permitted to be located in secure locations accessible to staff.

Statement of Problem and Substantiation for Public Input

No technical changes to 16.3.5.3.

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

- …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

- …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Submitter Information Verification

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Submittal Date: Tue Jun 01 15:11:12 EDT 2021
Committee: BLD-AXM

Committee Statement

Resolution: FR-8137-NFPA 5000-2021
Statement: No technical changes to 16.3.5.3.

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

• …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

• …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Public Input No. 30-NFPA 5000-2021 [Section No. 16.4.7.9.3]

16.4.7.9.3

Sprinklers shall not be required under stage areas less than 48 in. (1220 mm) in clear height used exclusively for chair or table storage and lined on the inside with ⅝ in. (16 mm) ~~Type~~ type X gypsum ~~wallboard~~ panels or an approved equivalent.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

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Submittal Date: Tue May 18 10:56:39 EDT 2021
Committee: BLD-AXM

Committee Statement

Resolution: FR-8138-NFPA 5000-2021
Statement: The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several revisions to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Public Input No. 31-NFPA 5000-2021 [Section No. 17.3.4.4.1]

17.3.4.4.1

Carbon monoxide alarms or carbon monoxide detectors in accordance with Section 55.11 shall be provided in new educational occupancies in the locations specified as follows:

(1) Carbon monoxide detectors shall be installed on the ceilings of rooms containing permanently installed fuel-burning appliances

(2) Carbon monoxide detectors shall be installed centrally located within occupiable spaces served by the first supply air register from a permanently installed, fuel-burning HVAC system

(3) Carbon monoxide detectors shall be installed centrally located within occupiable spaces adjacent to a communicating attached garage

(4) Carbon monoxide detectors shall be centrally located within occupiable spaces adjacent to an attached garage with a separation wall constructed of gypsum ~~wallboard~~ panels .

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 32-NFPA 5000-2021 [Section No. 17.3.4.4.3]	

Submitter Information Verification

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Submittal Date: Tue May 18 11:05:37 EDT 2021
Committee: BLD-END

Committee Statement

Resolution: FR-8199-NFPA 5000-2021
Statement: To align the terminology used within NFPA 101 and 5000 with the standard terminology used throughout the industry.

Public Input No. 32-NFPA 5000-2021 [Section No. 17.3.4.4.3]

17.3.4.4.3

Carbon monoxide detectors as specified in 17.3.4.4.1 shall not be required in the following locations:

(1) Garages

(2) Occupiable spaces with communicating attached garages that are open parking structures as defined in 3.3.633.11.4

(3) Occupiable spaces with communicating attached garages that are mechanically ventilated in accordance with the applicable mechanical code

(4) Occupiable spaces that are separated from attached garages by walls constructed of gypsum ~~wallboard~~ panels where the garage is an open parking structure as defined in 3.3.633.11.4.

(5) Occupiable spaces that are separated from attached garages by walls constructed of gypsum ~~wallboard where~~ panels where the garage is mechanically ventilated in accordance with the mechanical code.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 31-NFPA 5000-2021 [Section No. 17.3.4.4.1]	

Submitter Information Verification

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Affiliation: the Gypsum Association
Street Address:
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Submittal Date: Tue May 18 11:06:26 EDT 2021
Committee: BLD-END

Committee Statement

Resolution: FR-8200-NFPA 5000-2021
Statement: To align the terminology used within NFPA 101 and 5000 with the standard terminology used throughout the industry.

Public Input No. 140-NFPA 5000-2021 [Section No. 17.3.5]

17.3.5 Extinguishment Requirements.

17.3.5.1

Educational occupancy buildings shall be protected throughout by an approved, ~~electrically supervised automatic~~ automatic sprinkler system in accordance with Section 55.3 ~~except~~ .1 and electrically supervised in accordance with Section 55.3.2, except as otherwise permitted by 17.3.5.2.

17.3.5.2

The requirement of 17.3.5.1 shall not apply to the following:

(1) Nonrelocatable buildings having an area not exceeding 1000 ft^2 (93 m^2)

(2) Nonrelocatable buildings containing a single classroom

(3) Relocatable buildings complying with all of the following:

(4) Building area does not exceed 1000 ft^2 ($93\ m^2$)

(5) Building contains a single classroom

(6) Building is located not less than 30 ft (9.1 m) from another building.

17.3.5.3

Every portion of an educational occupancy building below the level of exit discharge shall be protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with Section 55.3.

17.3.5.4

Educational occupancy buildings with unprotected openings in accordance with 8.12.2 shall be protected throughout by an approved, ~~electrically supervised~~ automatic sprinkler system in accordance with Section 55.3. 1 and electrically supervised in accordance with 55.3.2.

17.3.5.5

Where another provision of this chapter requires an automatic sprinkler system to be electrically supervised, the sprinkler system shall be electrically supervised in accordance with 55.3.2.

17.3.5.6

Standpipes shall be in accordance with 17.3.5.6.1 and 17.3.5.6.2.

17.3.5.6.1

Class I standpipe systems shall be provided in buildings four or more stories in height, or having four or more basement levels, as specified in 55.4.1.

17.3.5.6.2

Class I standpipe systems shall be provided in buildings not protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with Section 55.3 where an occupiable area is more than 150 ft (45 m) from the closest point of fire department entry into the building.

17.3.5.7

Portable fire extinguishers in accordance with the provisions of Section 55.6 shall be installed.

Statement of Problem and Substantiation for Public Input

No tech changes to 17.3.5.2

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical

supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

- …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

- …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Submitter Information Verification

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Submittal Date:	Tue Jun 01 15:18:06 EDT 2021
Committee:	BLD-END

Committee Statement

Resolution: FR-8181-NFPA 5000-2021

Statement: For consistency with the language in NFPA 5000.

Public Input No. 81-NFPA 5000-2021 [Section No. 19.2.5.7.2.1(B)]

(B)

Patient care sleeping suites shall ~~be arranged in accordance with one of the following:~~

- ~~Patient sleeping rooms within patient care sleeping suites shall provide one of the following:~~

(1) ~~The patient sleeping rooms shall be arranged to allow for direct supervision from a normally attended location within the suite, such as is provided by glass walls, and cubicle curtains shall be permitted.~~

(2) ~~Any patient sleeping rooms without the direct supervision required by 19.2.5.7.2.1 (B)(1)(a) shall be provided with smoke detection in accordance with Section 55.2 and 19.3.4 .~~

~~Patient care sleeping suites shall be provided with a~~ be provided with a total (complete) coverage automatic smoke detection system in accordance with 55.2.2.3 and 19.3.4 .

Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurse's Stations. The task group recommends removing any language that assumes a nurse station would be continuously staffed or, for the most part, normally attended, relying instead on smoke detection throughout the area. One reason for this is the move toward distributed nurse stations that might not be staffed regularly (in both hospitals and long-term care) and the burden this places on the AHJ to determine the extent to which each nurse station is staffed. Our belief is that the addition of smoke detection in new construction would not be an onerous cost. The attendant Annex note is also recommended to be deleted.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 82-NFPA 5000-2021 [Section No. A.19.2.5.7.2.1(B)]	
Public Input No. 83-NFPA 5000-2021 [Section No. A.19.2.5.7.2.1(B)(1)]	
Public Input No. 84-NFPA 5000-2021 [Section No. 19.2.5.7.2.3(B)]	
Public Input No. 86-NFPA 5000-2021 [Section No. 19.3.6.1]	

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
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Submittal Date: Wed May 26 16:54:52 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: Direct visible supervision by staff is a viable option that has been permitted by the code for many years. No loss data has been provided to substantiate its elimination.

Public Input No. 84-NFPA 5000-2021 [Section No. 19.2.5.7.2.3(B)]

(B)

Patient care sleeping suites greater than 7500 ft^2 (700 m^2) gross floor area and not exceeding 10,000 ft^2 (930 m^2) gross floor area shall be permitted where both of the following are provided in the suite:

(1)* Direct visual supervision ~~in accordance with 19.2.5.7.2.1 (B)(1)(a)~~ from a normally attended location within the suite, such as is provided by glass walls, and cubicle curtains

(2) Total (complete) coverage automatic smoke detection in accordance with 55.2.2.3 and 19.3.4

Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurses' Stations. This change is linked to proposed changes to 19.2.5.7.2.1(B)(1)(a), which is proposed to be deleted and therefore cannot be referenced. In this case, retention of language requiring supervision from a normally attended location is recommended to justify the increase from 7500 square feet (700 square meters) to 10,000 square feet (930 square meters) because total (complete) coverage is already proposed to be required in patient care sleeping suites up to 7500 square feet (700 square meters). The Annex note is proposed to be revised to explain what is meant by "normally attended" in order clarify this requirement.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 81-NFPA 5000-2021 [Section No. 19.2.5.7.2.1(B)]	Reference in this section is being deleted
Public Input No. 85-NFPA 5000-2021 [Section No. A.19.2.5.7.2.3(B)(1)]	

Submitter Information Verification

Submitter Full Name: John Rickard
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Submittal Date: Wed May 26 17:14:03 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: The existing language is being retained based on the action on PI-81.

Public Input No. 86-NFPA 5000-2021 [Section No. 19.3.6.1]

19.3.6.1 General.

Corridors shall be separated from all other areas by partitions complying with 19.3.6.2 through 19.3.6.5*(see also 19.2.5.4),* unless otherwise permitted by one of the following:

(1) Spaces shall be permitted to be unlimited in area and open to the corridor, provided that all of the following criteria are met:

(2)* The spaces are not used for patient sleeping rooms, treatment rooms, or hazardous areas.

(3) The corridors onto which the spaces open in the same smoke compartment are protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4 , or the smoke compartment in which the space is located is protected throughout by quick-response sprinklers.

(4)* The open space is protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4

~~, or the entire space is arranged and located to allow direct supervision by the facility staff from a nurses' station or similar space~~

(a) .

(b) The space does not obstruct access to required exits.

(5)* ~~The requirement of 19.3.6.1 shall not apply to spaces for nurses' stations.~~

(6)

(7) Gift shops not exceeding 500 ft^2 (46.5 m^2) shall be permitted to be open to the corridor or lobby.

(8) In a limited care facility, group meeting or multipurpose therapeutic spaces shall be permitted to open to the corridor, provided that all of the following criteria are met:

(9) The space is not a hazardous area.

(10* The space is protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4

~~, or the space is arranged and located to allow direct supervision by the facility staff from the nurses' station or similar location~~

(a) .

(b) The area does not obstruct access to required exits.

(11) Cooking facilities in accordance with 19.3.2.4.3 shall be permitted to be open to the corridor.

Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurse's Stations. The task group recommends removing any language that assumes a nurse station would be continuously staffed or, for the most part, normally attended, relying instead on smoke detection throughout the area. One reason for this is the move toward distributed nurse stations that might not be staffed regularly (in both hospitals and long-term care) and the burden this places on the AHJ to determine the extent to which each nurse station is staffed. Our belief is that the addition of smoke detection in new construction would not be an onerous cost.
Note that the only change is the deleted text. The underlined text is existing (a quirk of Terra).

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 81-NFPA 5000-2021 [Section No. 19.2.5.7.2.1(B)]	Similar issue
Public Input No. 87-NFPA 5000-2021 [Section No. A.19.3.6.1(1)(c)]	
Public Input No. 88-NFPA 5000-2021 [Section No. A.19.3.6.1(2)]	

Public Input No. 89-NFPA 5000-2021 [Section No. A.19.3.6.1(4)(b)]

Submitter Information Verification

Submitter Full Name: John Rickard
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Submittal Date: Wed May 26 17:31:58 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: The concept of attended nurses stations open to the corridor has been in the code for many years and remains a viable option. No loss data has been presented to substantiate its elimination.

Public Input No. 152-NFPA 5000-2021 [New Section after 22.1.8.2]

22.1.9 Habitable Attics

22.1.9.1 General. Habitable attics shall comply with 22.1.9.2 through 22.1.9.4.

22.1.9.2 Minimum Dimensions. A habitable attic shall have a floor area of not less than 70 sq. ft. and a ceiling height of not less than 7 ft.

22.1.9.2.1 For rooms with sloped ceilings, the required floor area of the room shall have a ceiling height of not less than 5 feet and not less than 50 percent of the required floor area shall have a ceiling height of not less than 7 feet.

22.1.9.3 Story above grade plane. A habitable attic shall be considered a story above grade plane.

22.1.9.3.1 A habitable attic shall not be considered to be a story above grade plane provided that the habitable attic meets all the following:

(1) The aggregate area of the habitable attic is either of the following:

(2) Not greater than one-third of the floor area of the story below.

(3) Not greater than one-half of the floor area of the story below where the habitable attic is located within a dwelling unit equipped with an automatic fire sprinkler system in accordance with 55.3.1.1(3).

(4) The occupiable space is enclosed by the roof assembly above, knee walls, if applicable, on the sides and the floor-ceiling assembly below.

(5) The floor of the habitable attic does not extend beyond the exterior walls of the story below.

(6) Where a habitable attic is located above a third story, the dwelling unit or townhouse unit shall be equipped with a fire sprinkler system in accordance with 55.3.1.1(3).

22.1.9.4 Means of Egress. The means of egress for habitable attics shall comply with the applicable provisions of 22.2.

Statement of Problem and Substantiation for Public Input

Traditionally, the scope of a single/two family dwelling has been limited to three-stories. It is currently permitted to have an additional habitable spaces within one and
two-family dwellings and townhouses that enlarge the size of a dwelling while still considering it a “three-story”: a habitable attic and story below
grade plane (a basement). With a habitable attic not considered a story, a dwelling can now have 5 habitable levels, which conflicts with
the scope and intent. It should be noted that there is no limit to the area of a habitable attic. The occupiable floor area and
ceiling height requirements in the proposal are just minimums required for habitable space. For example, a modest footprint three
story dwelling with a cape cod style roof, could easily accommodate two bedrooms and a bathroom on the fourth habitable level above grade plane.
A larger estate size dwelling could have as much space on that fourth habitable attic level as a small ranch style house.

Submitter Information Verification

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Submittal Date: Tue Jun 01 16:24:55 EDT 2021
Committee: BLD-RES

Committee Statement

Resolution: The construction chapter determines what a story is and what sizing is included. The requirements would change construction type of certain sized houses. The definition of occupied story is determined by the construction chapters.

Public Input No. 33-NFPA 5000-2021 [Section No. 22.5.5]

22.5.5

Roof sheathing shall be of one of the following and shall extend for a width not less than 48 in. (1220 mm) on each side of common walls:

(1) Noncombustible material

(2) Fire-retardant-treated wood

(3) One ⅝ in. (16 mm) layer of ~~Type~~ type X gypsum ~~wallboard~~ panels attached to the underside of the roof decking

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Submitter Information Verification

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City:
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Submittal Date: Tue May 18 11:08:41 EDT 2021
Committee: BLD-RES

Committee Statement

Resolution: FR-8170-NFPA 5000-2021

Statement: The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Public Input No. 142-NFPA 5000-2021 [Section No. 23.3.6]

23.3.6 Extinguishment Requirements.

23.3.6.1*

Unless otherwise specified in Chapter 7, where modifications are permitted by this *Code*, based on the installation of an automatic sprinkler system, such modifications shall be permitted when the automatic sprinkler system complies with NFPA 13, NFPA 13D, or NFPA 13R.

23.3.6.2*

Where an automatic sprinkler system is required or is used as an alternative method of protection, either for total or partial building coverage, the following requirements shall be in accordance with Section 55.3.1 and electrically supervised in accordance with 55.3.2. The system shall also be in accordance with 23.3.6.2.1 through 23.3.6.2.5.

23.3.6.2.1

~~Activation of the automatic~~ Automatic sprinkler system waterflow shall actuate the fire alarm system in accordance with Section 55.2.

23.3.6.2.2

In buildings four or fewer stories in height and not exceeding 60 ft (18.3 m) in height above the grade plane, systems in accordance with NFPA 13R shall be permitted.

23.3.6.2.3

Systems in accordance with NFPA 13D shall be permitted where all of the following requirements are met:

(1) The lodging or rooming house shall not be part of a mixed occupancy.

(2) Entrance foyers shall be sprinklered.

(3) Lodging or rooming houses with sleeping accommodations for more than eight occupants shall be treated as two-family dwellings with regard to the water supply.

23.3.6.2.4

In buildings sprinklered in accordance with NFPA 13, closets less than 12 ft^2 (1.1 m^2) in area in individual dwelling units shall not be required to be sprinklered.

23.3.6.2.5

In buildings sprinklered in accordance with NFPA 13, closets that contain equipment such as washers, dryers, furnaces, or water heaters shall be sprinklered, regardless of size.

23.3.6.3

All lodging or rooming houses, other than those meeting the requirements of 23.3.6.4, shall be protected throughout by an approved automatic sprinkler system in accordance with 23.3.6.

23.3.6.4

In buildings, other than those meeting the requirements of 23.3.6.5, an approved automatic sprinkler system shall not be required where every sleeping room has a door opening directly to the outside of the building at street or the finished ground level, or has a door opening directly to the outside leading to an exterior stairway that meets the requirements of 23.2.1.1.

23.3.6.5

An approved automatic sprinkler system shall be installed throughout buildings, other than those meeting the requirements of 23.3.6.6, having a floor level located 55 ft (17 m) or more above the lowest level of fire department vehicle access.

23.3.6.6

An automatic sprinkler system shall not be required in buildings where all floors located 55 ft (17 m) or more above the lowest level of fire department vehicle access have an occupant load of less than 30, unless required by another section of this *Code*.

Statement of Problem and Substantiation for Public Input

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

- …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

- …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Submitter Information Verification

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Submittal Date:	Tue Jun 01 15:38:03 EDT 2021
Committee:	BLD-RES

Committee Statement

Resolution: FR-8167-NFPA 5000-2021

Statement: The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommended occupancy chapters to consider replacing text that points to Section 9.7.1.1 for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 as codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc.

Public Input No. 144-NFPA 5000-2021 [Sections 23.3.6.3, 23.3.6.4, 23.3.6.5, 23.3.6.6]

Sections 23.3.6.3, 23.3.6.4, 23.3.6.5, 23.3.6.6

23.3.6.3

All lodging or rooming houses ~~, other than those meeting the requirements of 23.3.6.4 ,~~ shall be protected throughout by an approved automatic sprinkler system in accordance with 23.3.6.

~~23.3.6.4~~ ~~–~~

~~In buildings, other than those meeting the requirements of 23.3.6.5 , an approved automatic sprinkler system shall not be required where every sleeping room has a door opening directly to the outside of the building at street or the finished ground level, or has a door opening directly to the outside leading to an exterior stairway that meets the requirements of 23.2.1.1 .~~

~~23.3.6.5~~ ~~–~~

~~An approved automatic sprinkler system shall be installed throughout buildings, other than those meeting the requirements of 23.3.6.6 , having a floor level located 55 ft (17 m) or more above the lowest level of fire department vehicle access.~~

~~23.3.6.6~~ ~~–~~

~~An automatic sprinkler system shall not be required in buildings where all floors located 55 ft (17 m) or more above the lowest level of fire department vehicle access have an occupant load of less than 30, unless required by another section of this *Code* .~~

Statement of Problem and Substantiation for Public Input

NFPA 5000 (as well as NFPA 101, the International Building Code and the International Residential Code) requires sprinklers in one- and two-family dwellings and townhouses. Furthermore, the transient and non-transient multi-family housing is also required to be sprinklered by the same model codes. The rooming or lodging house has a higher hazard with the transient occupants than the single family dwelling or the multi-family dwelling. The exceptions for direct access and/or under 55 feet in height are archaic and dangerous for these occupants.

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Submittal Date: Tue Jun 01 15:51:06 EDT 2021
Committee: BLD-RES

Committee Statement

Resolution: FR-8173-NFPA 5000-2021

Statement: NFPA 5000 (as well as NFPA 101, the International Building Code and the International Residential Code) requires sprinklers in one- and two-family dwellings and townhouses. Furthermore, the transient and non-transient multi-family housing is also required to be sprinklered by the same model codes. The rooming or lodging house has a higher hazard with the transient occupants than the single family dwelling or the multi-family dwelling. The exceptions for direct access and/or under 55 feet in height are archaic and dangerous for these occupants.

Public Input No. 146-NFPA 5000-2021 [Section No. 24.3.5.2]

24.3.5.2

All buildings, other than those complying with 24.3.5.3, shall be protected throughout by an approved, ~~supervised~~ automatic sprinkler system in accordance with Section 55.3.1, electrically supervised in accordance with Section 55.3.2 and installed in accordance with 24.3.5.4 .

Statement of Problem and Substantiation for Public Input

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

- …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

- …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Submitter Information Verification

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Submittal Date:	Tue Jun 01 16:02:32 EDT 2021
Committee:	BLD-RES

Committee Statement

Resolution: FR-8169-NFPA 5000-2021

Statement: The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommended occupancy chapters to consider replacing text that points to Section 9.7.1.1 for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 as codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc.

Public Input No. 147-NFPA 5000-2021 [Sections 24.3.5.2, 24.3.5.3]

Sections 24.3.5.2, 24.3.5.3

24.3.5.2

All buildings ~~, other than those complying with 24.3.5.3 ,~~ shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 24.3.5.4.

~~**24.3.5.3** –~~

~~Automatic sprinkler protection shall not be required in buildings where all guest sleeping rooms have a door opening directly to either of the following:~~

(1) ~~Outside at street or finished ground level~~

(2) ~~Exterior exit access arranged in accordance with 11.5.3 in buildings three or fewer stories in height above grade plane~~

Statement of Problem and Substantiation for Public Input

New hotels and dorms are required to be sprinklered by NFPA 101 and the International Building Code. There are no cases where new hotels or dorms have a justification to be built without an automatic sprinkler system today. New buildings with ground level access and exterior access of three story buildings of transient and non-transient occupants have long been required to be sprinklered by other model codes.

Submitter Information Verification

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Submittal Date: Tue Jun 01 16:06:44 EDT 2021
Committee: BLD-RES

Committee Statement

Resolution: FR-8174-NFPA 5000-2021
Statement: New hotels and dorms are required to be sprinklered by NFPA 101 and the International Building Code. There are no cases where new hotels or dorms have a justification to be built without an automatic sprinkler system today. New buildings with ground level access and exterior access of three story buildings of transient and non-transient occupants have long been required to be sprinklered by other model codes.

Public Input No. 128-NFPA 5000-2021 [Section No. 24.3.5.7]

~~24.3.5.7~~ –

~~Open parking structures complying with Section 30.8 that are contiguous with hotels or dormitories shall be exempt from the sprinkler requirements of 24.3.5.2 .~~

–

Statement of Problem and Substantiation for Public Input

The first draft of 2022 edition of NFPA 88A is taking the position that all parking structures, open and enclosed, are to be sprinklered. NFPA 5000 extracts several sections from NFPA 88A . The 2021 building code (International Building Code) does put some thresholds on when sprinklers are required in open parking, i.e. where the fire area exceeds 48,000 sq.ft. or where the topmost parking level exceeds 55 feet. The 2024 edition of NFPA 5000 should have language that supports the work in NFPA 88A and other model building codes following the recent open parking structure fires in the US and abroad.

Historically, open parking garages have been considered to have a very low fire risk, which has led to dozens of special allowances for reduced code requirements in these occupancies. Fire tests run decades ago offered some support for this perspective. However, it is common knowledge that much of what makes up a vehicle today is combustible, and bodies and interior components that may previously have been of steel are now primarily plastic, rubber, fiberglass and lightweight metals, facilitating vehicle-to-vehicle fire spread and production of combustible smoke layers. Stored energy systems in electric vehicles also increase the fuel load.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 127-NFPA 5000-2021 [Section No. 30.8.3.5.2]	
Public Input No. 127-NFPA 5000-2021 [Section No. 30.8.3.5.2]	
Public Input No. 130-NFPA 5000-2021 [Section No. 25.3.5.5]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
Organization: National Fire Sprinkler Associ
Affiliation: NFSA
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 01 13:55:56 EDT 2021
Committee: BLD-RES

Committee Statement

Resolution: FR-8171-NFPA 5000-2021
Statement: The first draft of 2022 edition of NFPA 88A is taking the position that all parking structures, open and enclosed, are to be sprinklered. The NFPA FPRF report “Modern Vehicle Hazards in Parking Structures and Vehicle Carriers” has shown evidence that fires in parking structures not protected by sprinklers can lead to catastrophic losses.

Public Input No. 149-NFPA 5000-2021 [Section No. 25.3.5]

25.3.5 Extinguishment Requirements.

25.3.5.1 General.

All buildings shall be protected throughout by an approved, ~~supervised~~ automatic sprinkler system installed in accordance with 25.3.5.1 through 25.3.5.6.

25.3.5.1.1

Where an automatic sprinkler system is installed, the system shall be installed in accordance with Section 55.3.1 , electrically supervised in accordance with 55.3.2, as modified by 25.3.5.3.

25.3.5.1.2

In apartment buildings up to and including four stories in height that are located in buildings not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with NFPA 13R shall be permitted.

25.3.5.1.3*

Unless otherwise specified in Chapter 7, where modifications are permitted by this *Code,* based on the installation of an automatic sprinkler system, such modifications shall be permitted where the automatic sprinkler system complies with NFPA 13 or NFPA 13R.

25.3.5.2 Attics.

Where located in a building of Type III, Type IV, or Type V construction designed in accordance with 7.4.3.6.5 or 7.4.3.6.7.1 and where the roof assembly is located more than 55 ft (17 m) above the lowest level of required fire department vehicle access, attics shall comply with 25.3.5.2.1, 25.3.5.2.2, and one of the following:

(1) Attics shall be provided with sprinkler protection.

(2) Attics shall be constructed with noncombustible materials.

(3) Attics shall be constructed with fire-retardant-treated wood.

(4) Attics shall be filled with noncombustible insulation.

25.3.5.2.1

The height of the roof assembly shall be determined by measuring the distance from the lowest level of required fire department vehicle access adjacent to the building to the eave of the highest pitched roof, the intersection of the highest roof to the exterior wall, or the top of the highest parapet, whichever yields the greatest distance.

25.3.5.2.2

Required fire department vehicle access roads used in 25.3.5.2.1 shall include only those roads that are necessary for required fire department vehicle access in compliance with the fire code.

25.3.5.3 Closets.

In buildings sprinklered in accordance with NFPA 13, closets shall meet the following requirements:

(1) Closets of less than 12 ft^2 (1.1 m^2) in individual dwelling units shall not be required to be sprinklered.

(2) Closets that contain equipment such as washers, dryers, furnaces, or water heaters shall be sprinklered, regardless of size.

25.3.5.4 Convenience Openings.

The draft stop and closely spaced sprinkler requirements of NFPA 13 shall not be required for convenience openings complying with 8.12.5 where the convenience opening is within the dwelling unit.

25.3.5.5 Open Parking Structures.

Open parking structures complying with Section 30.8 that are contiguous with apartment buildings shall be exempt from the sprinkler requirements of 25.3.5.1.

25.3.5.6 Unprotected Openings.

Buildings with unprotected openings in accordance with 8.12.2 shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 25.3.5.

25.3.5.7 Portable Fire Extinguishers.

Portable fire extinguishers in accordance with Section 55.6 shall be provided in hazardous areas addressed by 25.3.2, unless the building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 25.3.5.

25.3.5.8 Standpipes.

Standpipes shall comply with all of the following:

(1) Class I standpipe systems shall be provided where required by 55.4.1.

(2) Roof outlets shall not be required on roofs having slopes of 3 in 12 or greater.

Statement of Problem and Substantiation for Public Input

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

- …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

- …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Submitter Information Verification

Submitter Full Name:	Jeffrey Hugo
Organization:	National Fire Sprinkler Associ
Affiliation:	Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.
Street Address:	
City:	
State:	
Zip:	
Submittal Date:	Tue Jun 01 16:18:25 EDT 2021
Committee:	BLD-RES

Committee Statement

Resolution: FR-8168-NFPA 5000-2021

Statement: The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommended occupancy chapters to consider replacing text that points to Section 9.7.1.1 for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 as codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc.

Public Input No. 130-NFPA 5000-2021 [Section No. 25.3.5.5]

~~**25.3.5.5** – Open Parking Structures.~~

~~Open parking structures complying with Section 30.8 that are contiguous with apartment buildings shall be exempt from the sprinkler requirements of 25.3.5.1 .~~

Statement of Problem and Substantiation for Public Input

The first draft of 2022 edition of NFPA 88A is taking the position that all parking structures, open and enclosed, are to be sprinklered. NFPA 5000 extracts several sections from NFPA 88A . The 2021 building code (International Building Code) does put some thresholds on when sprinklers are required in open parking, i.e. where the fire area exceeds 48,000 sq.ft. or where the topmost parking level exceeds 55 feet. The 2024 edition of NFPA 5000 should have language that supports the work in NFPA 88A and other model building codes following the recent open parking structure fires in the US and abroad.

Historically, open parking garages have been considered to have a very low fire risk, which has led to dozens of special allowances for reduced code requirements in these occupancies. Fire tests run decades ago offered some support for this perspective. However, it is common knowledge that much of what makes up a vehicle today is combustible, and bodies and interior components that may previously have been of steel are now primarily plastic, rubber, fiberglass and lightweight metals, facilitating vehicle-to-vehicle fire spread and production of combustible smoke layers. Stored energy systems in electric vehicles also increase the fuel load.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 127-NFPA 5000-2021 [Section No. 30.8.3.5.2]	
Public Input No. 128-NFPA 5000-2021 [Section No. 24.3.5.7]	
Public Input No. 127-NFPA 5000-2021 [Section No. 30.8.3.5.2]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
Organization: National Fire Sprinkler Associ
Affiliation: NFSA
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 01 13:59:43 EDT 2021
Committee: BLD-RES

Committee Statement

Resolution: FR-8175-NFPA 5000-2021

Statement: The first draft of 2022 edition of NFPA 88A is taking the position that all parking structures, open and enclosed, are to be sprinklered. NFPA 5000 extracts several sections from NFPA 88A . The 2021 building code (International Building Code) does put some thresholds on when sprinklers are required in open parking, i.e. where the fire area exceeds 48,000 sq.ft. or where the topmost parking level exceeds 55 feet. The 2024 edition of NFPA 5000 should have language that supports the work in NFPA 88A and other model building codes following the recent open parking structure fires in the US and abroad.

Historically, open parking garages have been considered to have a very low fire risk, which has led to dozens of special allowances for reduced code requirements in these occupancies. Fire tests run decades ago offered some support for this perspective. However, it is common knowledge that much of

what makes up a vehicle today is combustible, and bodies and interior components that may previously have been of steel are now primarily plastic, rubber, fiberglass and lightweight metals, facilitating vehicle-to-vehicle fire spread and production of combustible smoke layers. Stored energy systems in electric vehicles also increase the fuel load.

Public Input No. 90-NFPA 5000-2021 [Section No. 26.2.3.4.7.2]

26.2.3.4.7.2

Where required by 26.2.3.4.7.1, carbon monoxide alarms or carbon monoxide detectors shall be installed in the following locations:

(1) Outside each separate sleeping area in the immediate vicinity of the sleeping rooms

(2) Within sleeping rooms containing fuel-burning appliances or fuel-burning fireplaces

(3) ~~On~~ In at least one readily accessible location on every occupiable level, including basements and excluding attics and crawl spaces

(4) Centrally located within occupiable spaces adjacent to a communicating attached garage, unless otherwise exempted by 26.2.3.4.7.3

Statement of Problem and Substantiation for Public Input

The specific locations noted in (1), (2), and (4) would not apply on a level that has neither sleeping rooms nor a garage. On such levels, the number and location of required carbon monoxide detectors is not specified. This provides a minimum requirement. Other potential options would be "immediately outside any room with fuel-fired equipment" or within a certain distance of any fuel-fired equipment, though a minimum number and location would still be needed for any levels that do not contain any fuel-fired equipment.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 91-NFPA 5000-2021 [Section No. 26.3.3.4.9.2]	

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 17:49:30 EDT 2021
Committee: BLD-BCF

Committee Statement

Resolution: The proposed addition of the term readily accessible may create confusion. The existing text is exactly the same as that provided in chapter 29 of NFPA 72. Installation criteria is provided in chapter 17 of NFPA 72.

Public Input No. 92-NFPA 5000-2021 [Section No. 26.2.3.5.2.1]

26.2.3.5.2.1

In buildings four or fewer stories in height and not exceeding 60 ft (18.3 m) in height above grade plane, systems in accordance with NFPA 13R shall be permitted. All habitable areas, closets, ~~roofed porches, roofed decks, and roofed balconies~~ and exterior projections greater than 4 ft (1.2 m) shall be sprinklered.

Statement of Problem and Substantiation for Public Input

The current wording could be read to require sprinkler protection under all overhangs at porches, decks and balconies, regardless of the size of the overhang. The proposed language matches the requirement in NFPA 13 for exterior projections. The language in NFPA 13 has changed over the years from "exterior roofs and canopies" to "exterior projections." The concern appears to be fire burning out openings such as windows and upward into the attic where it can spread to other parts of the structure. NFPA 13 A-9.3.19.2 specifically notes that combustible furniture on balconies for occupant use should not require sprinkler protection, so there appears to be no justification for singling out porches, decks and balconies. The issue is the depth of the overhang, not occupants and furniture beneath the overhang.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 93-NFPA 5000-2021 [Section No. 26.2.3.5.2.2]	

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 17:56:18 EDT 2021
Committee: BLD-BCF

Committee Statement

Resolution: Coordination is needed between the NFPA 13R and 13D requirements and public inputs 196, 197, 198, 104, 205, and 106 from NFPA 101, and public inputs 92, 93, and 94 from NFPA 5000 related to exterior projections and attics. The TC has formed a task group to address all of the proposed revisions related to sprinklers in exterior projections and attics.

Public Input No. 93-NFPA 5000-2021 [Section No. 26.2.3.5.2.2]

26.2.3.5.2.2*

An automatic sprinkler system complying with NFPA 13D, with a 30-minute water supply, shall be permitted. All habitable areas, closets, ~~roofed porches, roofed decks, and roofed balconies~~ and exterior projections greater than 4 ft (1.2 m) deep shall be sprinklered. Facilities with more than eight residents shall be treated as two-family dwellings with regard to water supply.

Statement of Problem and Substantiation for Public Input

The current wording could be read to require sprinkler protection under all overhangs at porches, decks and balconies, regardless of the size of the overhang. The proposed language matches the requirement in NFPA 13 for exterior projections. The language in NFPA 13 has changed over the years from "exterior roofs and canopies" to "exterior projections." The concern appears to be fire burning out openings such as windows and upward into the attic where it can spread to other parts of the structure. NFPA 13 A-9.3.19.2 specifically notes that combustible furniture on balconies for occupant use should not require sprinkler protection, so there appears to be no justification for singling out porches, decks and balconies. The issue is the depth of the overhang, not occupants and furniture beneath the overhang.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 92-NFPA 5000-2021 [Section No. 26.2.3.5.2.1]	Identical issue

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 17:58:23 EDT 2021
Committee: BLD-BCF

Committee Statement

Resolution: Coordination is needed between the NFPA 13R and 13D requirements and public inputs 196, 197, 198, 104, 205, and 106 from NFPA 101, and public inputs 92, 93, and 94 from NFPA 5000 related to exterior projections and attics. The TC has formed a task group to address all of the proposed revisions related to sprinklers in exterior projections and attics.

Public Input No. 94-NFPA 5000-2021 [New Section after 26.2.3.5.6.2]

26.2.3.5.6.3

The provisions of 26.2.3.5.6.1 and 26.2.3.5.6.2 shall be permitted to be applied separately to portions of the attic separated by smoke partitions that extend from the ceiling to the underside of the floor or roof deck above.

Statement of Problem and Substantiation for Public Input

Sprinklering the entire attic is required even where living and storage spaces or fuel-fired equipment are separated from the rest of the attic. This provision would allow enclosing spaces that have living, storage or fuel-fire equipment in smoke partitions and sprinklering only that portion of the attic that is exposed to these areas.

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 18:00:44 EDT 2021
Committee: BLD-BCF

Committee Statement

Resolution: Coordination is needed between the NFPA 13R and 13D requirements and public inputs 196, 197, 198, 104, 205, and 106 from NFPA 101, and public inputs 92, 93, and 94 from NFPA 5000 related to exterior projections and attics. The TC has formed a task group to address all of the proposed revisions related to sprinklers in exterior projections and attics.

Public Input No. 91-NFPA 5000-2021 [Section No. 26.3.3.4.9.2]

26.3.3.4.9.2

Where required by 26.3.3.4.9.1, carbon monoxide detectors shall be installed in all of the following locations:

(1) Within rooms containing fuel-burning appliances or fuel-burning fireplaces, unless otherwise exempted by 26.3.3.4.9.4

(2) Centrally located within occupiable spaces served by the first supply air register from a fuel-burning HVAC system

(3) ~~On~~ In at least one readily accessible location on every occupiable level

(4) Within adjacent communicating occupiable spaces to an attached garage, unless otherwise exempted by 26.3.3.4.9.3

Statement of Problem and Substantiation for Public Input

The specific locations noted in (1), (2), and (4) would not apply on a level that has neither sleeping rooms nor a garage. On such levels, the number and location of required carbon monoxide detectors is not specified. This provides a minimum requirement. Other potential options would be "immediately outside any room with fuel-fired equipment" or within a certain distance of any fuel-fired equipment, though a minimum number and location would still be needed for any levels that do not contain any fuel-fired equipment.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 90-NFPA 5000-2021 [Section No. 26.2.3.4.7.2]	Identical issue

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 17:51:54 EDT 2021
Committee: BLD-BCF

Committee Statement

Resolution: The proposed addition of the term readily accessible may create confusion. Installation criteria is provided in chapter 17 of NFPA 72.

Public Input No. 1-NFPA 5000-2021 [New Section after 26.3.6]

[See attached Public Comment No. 64 - Rejected but held]

Existing Residential Board and Care

26.4 Emergency Call Systems

26.4.1 General.

When provided in existing facilities with healthcare providers on premises, the Emergency Call System shall listed to UL 2560.

Additional Proposed Changes

File Name	Description	Approved
5000_A2023_BLD_BCF_PC64.pdf	Public Comment No. 64 - Rejected but held	

Statement of Problem and Substantiation for Public Input

NOTE: This Public Input appeared as "Rejected but held" in Public Comment No. 64 of the A2020 Second Draft Report for NFPA 5000 and per the Regs at 4.4.8.3.1.

Submitter Information Verification

Submitter Full Name: TC ON BLD-BCF
Organization: NFPA
Street Address:
City:
State:
Zip:
Submittal Date: Mon Feb 01 10:24:25 EST 2021
Committee: BLD-BCF

Committee Statement

Resolution: A listing for emergency call systems is unnecessary without the inclusion of requirements for when and where these systems are needed for life safety in accordance with the scope of this document. The proposed requirement is not addressed in this chapter. Additionally, this would create an enforcement issue as it's unclear what “healthcare providers on premises” means.

Public Comment No. 64-NFPA 5000-2019 [New Section after 26.3.6]

TITLE OF NEW CONTENT - Existing Residential Board and Care

Type your content here ...

26.4 Emergency Call Systems

26.4.1 General. When provided in existing facilities with healthcare providers on premises, the Emergency Call System shall listed to UL 2560.

Statement of Problem and Substantiation for Public Comment

An Emergency Call System “listed” to UL 2560 provides 3rd Party tested and audited assurance of safeguards against critical hazards such as fire and electrical shock whereas, a “non-listed” system would not have been independently assessed or audited as providing such assurance. An Emergency Call System that is “not-listed” to an electrical safety standard does not provide the same level of safety and reliability as does one which has been tested, evaluated and “listed” by a Nationally Recognized Testing Laboratory (NRTL). This proposed change does not require the installation of an Emergency Call System. However, this proposed change does require that when an Emergency Call System is installed that it be listed to a nationally recognized standard
Additional justifications

- Resident safety is receiving greater attention in Assisted Living (AL) and Independent Living (IL) facilities as these housing options proliferate and facilities provide varying levels of safety measures in a diverse regulatory environment.
- Many, but not all, AL and IL facilities install e-call systems and use them to market the safety of their facilities and the services they provide. Residents and families rely on the functionality and reliability of these systems when selecting from housing options.
- There are a great variety of e-call systems from many manufacturers that offer differing features. Most of these systems are wireless, which introduces significant reliability concerns.
- UL 2560 was developed to provide a “minimum safety standard” for functionality and reliability of e-call systems so that residents and families can be assured that e-call systems installed in facilities will perform at a standard level of functionality.
- Given this environment, NFPA 101 should provide assurance that if a facility installs an e-call system, it meets the requirements of 2560 out of concern for the safety of residents and the intended reliance of these systems for emergency communications.

Related Item

• PI 128 •

Submitter Information Verification

Submitter Full Name: Megan Hayes
Organization: Nema
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 06 13:45:38 EDT 2019
Committee: BLD-BCF

Committee Statement

Committee Action: Rejected but held
Resolution: The committee would like to include requirements for listing of emergency call systems, however, the current language is too limited in scope and is not enforceable.

Public Input No. 151-NFPA 5000-2021 [Section No. 27.3.5.1]

27.3.5.1

Mercantile occupancies shall be protected by an approved, ~~electrically supervised~~ automatic sprinkler system in accordance with Section 55.3.1 and electrically supervised in accordance with 55.3.2 in any of the following areas:

(1) Throughout all mercantile occupancies three or more stories in height

(2) Throughout all mercantile occupancies exceeding 12,000 ft^2 (1115 m^2) in gross area

(3) Throughout stories below the level of exit discharge where such stories have an area exceeding 2500 ft^2 (232 m^2) and are used for the sale, storage, or handling of combustible goods and merchandise

(4) Throughout mixed occupancies in accordance with 6.2.3 where the conditions of 27.3.5.1(1), 27.3.5.1(2), or 27.3.5.1(3) apply to the mercantile occupancy

Statement of Problem and Substantiation for Public Input

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

- …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

- …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Submitter Information Verification

Submitter Full Name:	Jeffrey Hugo
Organization:	National Fire Sprinkler Associ
Affiliation:	Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.
Street Address:	
City:	
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Submittal Date:	Tue Jun 01 16:23:59 EDT 2021
Committee:	BLD-MER

Committee Statement

Resolution: FR-8144-NFPA 5000-2021

Statement: This provides a requirement that where sprinkler systems are provided, they should comply with NFPA 13. This requirements aligns with the scope of NFPA 13 and other NFPA sprinkler systems standards for mercantile occupancies.

NFPA 13 offers multiple options for supervision of sprinkler systems. It can be confusing when applying

the requirements and sometimes can be missed. This provides a user friendly pointer to the NFPA 101 supervision requirements for sprinklers systems in new mercantile occupancies. The supervision requirements were added as separate paragraph to comply with the NFPA Manual of Style, which does not permit multiple requirements within a single section.

Public Input No. 153-NFPA 5000-2021 [New Section after 28.3.5]

28.3.5.1
Where automatic sprinkler systems are installed, they shall be in accordance with Section 55.3.1 and electrically supervised in accordance with 55.3.2.

Statement of Problem and Substantiation for Public Input

Automatic sprinkler systems are often installed in business occupancies. This public input does not require the automatic sprinkler system, but guides the user to the appropriate sprinkler installation standard and the requirement for electrical supervision.

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
Organization: National Fire Sprinkler Associ
Affiliation: NFSA
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 01 16:25:52 EDT 2021
Committee: BLD-MER

Committee Statement

Resolution: FR-8145-NFPA 5000-2021
Statement: This provides a requirement that were sprinkler systems are provided, they should comply with NFPA 13. This requirements aligns with the scope of NFPA 13 and other NFPA sprinkler systems standards for new business occupancies.

NFPA 13 offers multiple options for supervision of sprinkler systems. When sprinkler systems are installed in business occupancies, they should be electrically supervised. This provides a user friendly pointer to the supervision requirements.The supervision requirements were added as separate paragraph to comply with the NFPA Manual of Style, which does not permit multiple requirements within a single section.

Public Input No. 131-NFPA 5000-2021 [Section No. 29.2.6.1]

29.2.6.1

Travel distance, measured in accordance with Section 11.6, shall not exceed that provided by Table 29.2.6.1 except as otherwise permitted by 29.2.6.2.

Table 29.2.6.1 Maximum Travel Distance to Exits

Arrangement	General Industrial Occupancy ft	General Industrial Occupancy m	Special-Purpose Industrial Occupancy ft	Special-Purpose Industrial Occupancy m
Protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2	250*	76*	400	122
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2	200	60	300	91

*In one-story buildings, a travel distance of 400 ft (122 m) is permitted, provided that a performance-based analysis demonstrates that safe egress can be accomplished.

Statement of Problem and Substantiation for Public Input

Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

Submitter Information Verification

Submitter Full Name: Andrew Bevis
Organization: National Fire Sprinkler Associ
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 01 14:39:46 EDT 2021
Committee: BLD-IND

Committee Statement

Resolution: FR-8182-NFPA 5000-2021
Statement: This does not constitute a technical change, just provides a pointer to the requirements within 55.3.1.1(1) which requires an NFPA 13 system to be consistent with other changes within NFPA 5000.

Public Input No. 154-NFPA 5000-2021 [Section No. 29.3.5.1]

29.3.5.1 ~~Fire Sprinklers~~ Automatic Sprinkler System .

29.3.5.1.1 General.

Industrial occupancies, other than low-hazard industrial occupancies, shall be protected by an approved automatic sprinkler system in accordance with ~~NFPA 13 in~~ 55.3.1 and electrically supervised in accordane with 55.3.2 in any of the following locations:

(1) Throughout all industrial occupancies three or more stories in height

(2) Throughout all industrial occupancies exceeding 12,000 ft^2 (1115 m^2) in fire area

(3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft^2 (2230 m^2)

29.3.5.1.2 Woodworking Operations.

An approved automatic fire sprinkler system shall be installed in buildings containing woodworking operations exceeding 2500 ft^2 (232 m^2) that use equipment, machinery, or appliances; that generate finely divided combustible waste; or that use finely divided combustible materials.

29.3.5.1.3* Power-Generation Buildings.

In lieu of providing sprinkler protection throughout in accordance with 29.3.5.1, buildings of Type I or Type II construction used exclusively for the enclosure of steam generators, steam turbines, gas turbines, heat recovery generators, and flue gas treatment equipment shall not be required to be sprinklered throughout, provided that the special hazards are protected by approved automatic suppression systems in accordance with NFPA 11, NFPA 12, NFPA 13, NFPA 15, NFPA 16, NFPA 17, NFPA 750, or NFPA 2001.

~~**29.3.5.1.4** – Waterflow Alarms.~~

~~Waterflow alarms shall be monitored in accordance with 55.3.2.2 .~~

Statement of Problem and Substantiation for Public Input

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

- …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

- …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Submitter Information Verification

Submitter Full Name:	Jeffrey Hugo
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Affiliation:	Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.
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Submittal Date: Tue Jun 01 16:28:14 EDT 2021
Committee: BLD-IND

Committee Statement

Resolution: FR-8179-NFPA 5000-2021
Statement: The committee agrees with the PI submitter's substantiation for the changes to NFPA 5000 to require electrical supervision for sprinkler systems.

Public Input No. 132-NFPA 5000-2021 [Section No. 30.2.6]

30.2.6* Travel Distance to Exits.

Travel distance, measured in accordance with Section 11.6, shall not exceed that provided by Table 30.2.6.

Table 30.2.6 Maximum Travel Distance to Exits

Arrangement	ft	Low-Hazard Storage Occupancy	Storage Occupancy m
Protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2	Unlimited	400	122
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2	Unlimited	200	60

Statement of Problem and Substantiation for Public Input

Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

Submitter Information Verification

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Submittal Date: Tue Jun 01 14:42:07 EDT 2021
Committee: BLD-IND

Committee Statement

Resolution: FR-8183-NFPA 5000-2021
Statement: This does not constitute a technical change, just provides a pointer to the requirements within 55.3.1.1(1) which requires an NFPA 13 system to be consistent with other changes within NFPA 5000.

Public Input No. 148-NFPA 5000-2021 [Section No. 30.3.4.1]

30.3.4.1 ~~Fire Sprinklers~~ Automatic Sprinkler Systems .

30.3.4.1.1

Storage occupancies, other than low-hazard storage occupancies, shall be protected by an approved, ~~supervised~~ automatic sprinkler system in accordance with ~~NFPA 13 in~~ 55.3.1 and electrically supervised in accordance with 55.3.2 in any of the following locations:

(1) Throughout all storage occupancies three or more stories in height

(2) Throughout all storage occupancies exceeding 12,000 ft^2 (1115 m^2) in fire area

(3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft^2 (2230 m^2)

~~**30.3.4.1.2** –~~

~~Waterflow alarms shall be monitored in accordance with 55.3.2.2 .~~

Statement of Problem and Substantiation for Public Input

The SAF-AAC and BLD-AAC formed a task group to review fire sprinkler supervision requirements in NFPA 101 and 5000. The task group recommends occupancy chapters to consider replacing text that points to Section 9.7.1.1 (likewise in NFPA 5000, Section 55.3.1.) for supervision, as this can be interpreted the installation standard, i.e. NFPA 13, drives the method of supervision which allows chains and locks on new installations. This is not the intent of NFPA 101 or NFPA 5000 as model codes that allow construction tradeoffs and exceptions based on electrical supervision of valves, waterflow, etc. The task group recommends occupancy TCs to revise text in XX.3.5.1 to be explicit as follows:

- …protected by an automatic sprinkler system in accordance with Section 9.7.1 and electrically supervised in accordance with 9.7.2.

- …protected by an automatic sprinkler system in accordance with Section 55.3 and electrically supervised in accordance with 55.3.2.

Submitted on behalf of the SAF-AAC and BLD-AAC task group on sprinkler supervision.

Submitter Information Verification

Submitter Full Name:	Jeffrey Hugo
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Submittal Date:	Tue Jun 01 16:14:45 EDT 2021
Committee:	BLD-IND

Committee Statement

Resolution: FR-8180-NFPA 5000-2021

Statement: The committee agrees with the PI submitter substantiation for changes to NFPA 5000 to requirement electrical supervision for sprinkler systems in storage occupancies.

Public Input No. 133-NFPA 5000-2021 [Section No. 30.7.5.2]

30.7.5.2

Travel distances, measured in accordance with Section 11.6, shall not exceed those provided by Table 30.7.5.2.

Table 30.7.5.2 Maximum Travel Distance to Means of Escape or Exits

Arrangement	Travel Distance ft	Travel Distance m
Protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2	400	122
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2	200	61

Statement of Problem and Substantiation for Public Input

Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

Submitter Information Verification

Submitter Full Name: Andrew Bevis
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Submittal Date: Tue Jun 01 14:43:25 EDT 2021
Committee: BLD-IND

Committee Statement

Resolution: FR-8184-NFPA 5000-2021
Statement: This does not constitute a technical change, just provides a pointer to the requirements within 55.3.1.1(1) which requires an NFPA 13 system to be consistent with other changes within NFPA 5000.

Public Input No. 134-NFPA 5000-2021 [Section No. 30.8.2.6.1]

30.8.2.6.1

Travel distance, measured in accordance with Section 11.6, shall not exceed that provided by Table 30.8.2.6.1 except as otherwise provided in 30.8.2.6.2.

Table 30.8.2.6.1 Maximum Travel Distance to Exits

Arrangement	Enclosed Parking Structure ft	Enclosed Parking Structure m	Open Parking Structure ft	Open Parking Structure m	Parking Structure Open Not Less than 50 Percent on All Sides ft	Parking Structure Open Not Less than 50 Percent on All Sides m
Protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2	200	61	400	122	400	122
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 13~~ 55.3.1.1(1) and 55.3.2	150	46	300	91	400	122

Statement of Problem and Substantiation for Public Input

Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

Submitter Information Verification

Submitter Full Name: Andrew Bevis
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Submittal Date: Tue Jun 01 14:44:35 EDT 2021
Committee: BLD-IND

Committee Statement

Resolution: FR-8185-NFPA 5000-2021
Statement: This does not constitute a technical change, just provides a pointer to the requirements within 55.3.1.1(1) which requires an NFPA 13 system to be consistent with other changes within NFPA 5000.

Public Input No. 127-NFPA 5000-2021 [Section No. 30.8.3.5.2]

30.8.3.5.2

Automatic sprinkler systems shall be installed in ~~portions of enclosed~~ all parking structures~~, the ceilings of which are less than 24 in .~~ ~~(600 mm) above grade, regardless of type of construction, and in enclosed parking structures of Type III or Type IV construction over 50 ft (15 m) in height.~~ [**88A:**6.4.2]

Statement of Problem and Substantiation for Public Input

The first draft of 2022 edition of NFPA 88A is taking the position that all parking structures, open and enclosed, are to be sprinklered. NFPA 5000 extracts several sections from NFPA 88A .

Last cycle, a public comment was submitted to correlate NFPA 5000 to the thresholds in the 2021 International Building Code for sprinklers in open parking, i.e. where the fire area exceeds 48,000 sq.ft. or where the topmost parking level exceeds 55 feet. The BLD-IND committee statement for PC 72-NFPA 5000-2019: NFPA 88A is the standard for parking garages. This revision is more appropriately placed in 88A. If that technical committee, which has expertise in protecting parking garages, chooses to make this revision, then it would be appropriate to make a similar revision in NFPA 5000.

The 2024 edition of NFPA 5000 should have language that supports the work in NFPA 88A and other model building codes following the recent open parking structure fires in the US and abroad. Historically, open parking garages have been considered to have a very low fire risk, which has led to dozens of special allowances for reduced code requirements in these occupancies. Fire tests run decades ago offered some support for this perspective. However, it is common knowledge that much of what makes up a vehicle today is combustible, and bodies and interior components that may previously have been of steel are now primarily plastic, rubber, fiberglass and lightweight metals, facilitating vehicle-to-vehicle fire spread and production of combustible smoke layers. Stored energy systems in electric vehicles also increase the fuel load.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 128-NFPA 5000-2021 [Section No. 24.3.5.7]	
Public Input No. 130-NFPA 5000-2021 [Section No. 25.3.5.5]	
Public Input No. 128-NFPA 5000-2021 [Section No. 24.3.5.7]	
Public Input No. 130-NFPA 5000-2021 [Section No. 25.3.5.5]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
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Submittal Date: Tue Jun 01 13:39:55 EDT 2021
Committee: BLD-IND

Committee Statement

Resolution: CI-8186-NFPA 5000-2021
Statement: The committee plans to correlate sprinkler requirements from the 2023 edition of NFPA 88A into 5000. The following change was on the first draft report for NFPA 88A, the committee will adopt the new language pertaining to sprinklers consistent with the second draft report for NFPA 88A, as per the NFPA manual of style.

Public Input No. 61-NFPA 5000-2021 [Section No. 32.7.3]

32.7.3 Minimum Construction Requirements.

32.7.3.1–

Grandstands and bleachers shall be constructed of any one of the following materials:

(1) wood,

(2) noncombustible materials

(3) materials that exhibit a flame spread index not exceeding a flame spread index of 200 and a smoke developed index of 450 when tested 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.*

32.7.3.2

Grandstands and bleachers shall be permitted to be of unlimited area when of Type I or Type II construction.

32.7.3.2 3

Grandstands and bleachers shall be permitted to be of Type III, Type IV, or Type V construction when designed in accordance with 32.7.5.

Statement of Problem and Substantiation for Public Input

This section does not contain any material requirements for grandstands and bleachers. It is important that the materials of construction meet some fire safety requirements to prevent grandstands to be constructed of highly flammable materials. A very tragic fire incident occurred in England on May 11, 1985, at the Bradford City soccer stadium. A small flame (from a cigarette falling on trash) ignited the grandstands and it resulted in a massive fire with 56 fatalities and 265 injuries, as well as the complete destruction of the stadium.
The recommended requirements are ones that wood (the most common grandstand material) can easily meet (and wood is allowed by default also) but it would prohibit the use of highly combustible plastics. Materials other than wood (and noncombustible materials) would also be able to be used, as long as they meet the requirements (which constitute a Class C).

Submitter Information Verification

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Zip:
Submittal Date: Mon May 24 19:12:40 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8101-NFPA 5000-2021
Statement: The committee agreed with the submitter with modification of language to specifically add fire-retardant-treated wood to the list and clarifying item #4 by removing duplication of text and adding "not exceeding" prior to 450, as provided in the Public Input.

Public Input No. 135-NFPA 5000-2021 [Section No. 34.1.3.1]

34.1.3.1* General.

The maximum allowable quantities (MAQ) of hazardous materials per control area shall be as specified in Table 34.1.3.1, except as modified by 34.1.3.2 through 34.1.3.4.

Table 34.1.3.1 Maximum Allowable Quantities (MAQ) of Hazardous Materials per Control Area

Material	Class	High-Hazard Protection Level	Storage			Use — Closed Systems			Use — Open Systems	
			Solid Pounds	Liquid Gallons (lb)	Gas (at NTP) ft^3 (lb)	Solid Pounds	Liquid Gallons (lb)	Gas (at NTP) ft^3 (lb)	Solid Pounds	Liqu Gallo (lb
Physical Hazard Materials										
Combustible liquid[c]	II	3	N/A	120[a,b]	N/A	N/A	See Note 1.	N/A	N/A	Se Note
	IIIA	3	N/A	330[a,b]	N/A	N/A	See Note 1.	N/A	N/A	Se Note
	IIIB	N/A	N/A	13,200[a,d]	N/A	N/A	See Note 1.	N/A	N/A	Se Note
Combustible metals	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	Se Note
Cryogenic fluid	Flammable	2	N/A	45[e,f]	N/A	N/A	45[e,f]	N/A	N/A	45[e
[**55:** Table 6.3.1.1]	Oxidizing	3	N/A	45[a,b]	N/A	N/A	45[a,b]	N/A	N/A	45[a
	-	Inert	N/A	N/A	NL	N/A	N/A	NL	N/A	N/A
Explosives	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	See Note 1.	Se Note
Flammable gas[g]	Gaseous	2	N/A	N/A	1000[a,b]	N/A	N/A	1000[a,b]	N/A	N/A
[**55:** Table 6.3.1.1]	Liquefied	2	N/A	N/A	(150)[a,b]	N/A	N/A	(150)[a,b]	N/A	N/A
	-	Liquefied petroleum (LP)	2	N/A	N/A	(300[h,i,j])	N/A	N/A	(300[i])	N/A
Flammable liquid[c]	IA	3	N/A	30[a,b]	N/A	N/A	See Note 1.	N/A	N/A	Se Note
	-	IB and IC	3	N/A	120[a,b]	N/A	N/A	See Note 1.	N/A	N/A
	-	Combination (IA, IB, IC)	3	N/A	120[a,b,k]	N/A	N/A	See Note 1.	N/A	N/A
Flammable solid	N/A	3	125[a,b]	N/A	N/A	125[a,b]	N/A	N/A	25[a,b]	N/A
Inert gas	Gaseous	N/A	N/A	N/A	NL	N/A	N/A	NL	N/A	N/A
	-	Liquefied	N/A	N/A	N/A	NL	N/A	N/A	NL	N/A
Organic peroxide	UD	1	1[a,l]	(1)[a,l]	N/A	¼[l]	(¼)[l]	N/A	¼[l]	(¼
	-	I	2	16[a,b]	(16)[a,b]	N/A	8[a,b]	(8)[a,b]	N/A	8[a,
	-	IIA	3	100[a,b]	(100)[a,b]	N/A	50[b]	(50)[b]	N/A	100[a
	-	IIB	3	400	(400)	N/A	200	(200)	NA	40(
	-	III	3	840[a,b]	(840)[a,b]	N/A	840[b]	(840)[b]	N/A	840[a
	-	IV	N/A	NL	NL	N/A	NL	NL	N/A	NL
	-	V	N/A	NL	NL	N/A	NL	NL	N/A	NL

Material	Class	High-Hazard Protection Level	Storage			Use — Closed Systems			Use — Open Systems	
			Solid Pounds	Liquid Gallons (lb)	Gas (at NTP) ft^3 (lb)	Solid Pounds	Liquid Gallons (lb)	Gas (at NTP) ft^3 (lb)	Solid Pounds	Liqu Gallo (lb
Physical Hazard Materials										
Oxidizer	4	1	1[a,l]	(1)[a,l]	N/A	¼[l]	(¼)[l]	N/A	¼[l]	(¼
	-	3[m]	2 or 3	10[a,b]	(10)[a,b]	N/A	2[b]	(2)[b]	N/A	2[b
	-	2	3	250[a,b]	(250)[a,b]	N/A	250[b]	(250)[b]	N/A	50[b
	-	1	N/A	4000[a,n]	(4000)[a,n]	N/A	4000[n]	(4000)[n]	N/A	100
Oxidizing gas [**55:** Table 6.3.1.1]	Gaseous	3	N/A	N/A	1500[a,b]	N/A	N/A	1500[a,b]	N/A	N/A
	-	Liquefied	3	N/A	N/A	(150)[a,b]	N/A	N/A	(150)[a,b]	N/A
Pyrophoric	N/A	2	4[a,l]	(4)[a,l]	N/A	1[l]	(1)[l]	N/A	NP	NP
Pyrophoric gas [**55:** Table 6.3.1.1]	Gaseous	2	N/A	N/A	50[a,l]	N/A	N/A	50[a,l]	N/A	N/A
	-	Liquefied	2	N/A	N/A	(4)[a,l]	N/A	N/A	(4)[a,l]	N/A
Unstable (reactive)	4	1	1[a,l]	(1)[a,l]	N/A	¼[l]	(¼)[i]	N/A	¼[l]	(¼
	-	3	1 or 2	5[a,b]	(5)[a,b]	N/A	1[b]	(1)[b]	N/A	1[b
	-	2	2	50[a,b]	(50)[a,b]	N/A	50[b]	(50)[b]	N/A	10[b
	-	1	N/A	NL	NL	N/A	NL	NL	N/A	NL
Unstable (reactive) Gas [**55:** Table 6.3.1.1]	Gaseous 4 or 3 detonable	1	N/A	N/A	10[a,l]	N/A	N/A	10[a,l]	N/A	N/A
	-	3 nondetonable	2	N/A	N/A	50[a,b]	N/A	N/A	50[a,b]	N/A
	-	2	3	N/A	N/A	750[a,b]	N/A	N/A	750[a,b]	N/A
	-	1	N/A	N/A	N/A	NL	N/A	N/A	NL	N/A
Unstable (reactive) gas [**55:** Table 6.3.1.1]	Liquefied 4 or 3 detonable	1	N/A	N/A	(1)[a,l]	N/A	N/A	(1)[a,l]	N/A	N/A
	-	3 nondetonable	2	N/A	N/A	(2)[a,b]	N/A	N/A	(2)[a,b]	N/A
	-	2	3	N/A	N/A	(150)[a,b]	N/A	N/A	(150)[a,b]	N/A
	-	1	N/A	N/A	N/A	NL	N/A	N/A	NL	N/A
Water-reactive	3	2	5[a,b]	(5)[a,b]	N/A	5[b]	(5)[b]	N/A	1[b]	(1)
	-	2	3	50[a,b]	(50)[a,b]	N/A	50[b]	(50)[b]	N/A	10[b
	-	1	N/A	NL	NL	N/A	NL	NL	N/A	NL
Health Hazard Materials										

Material	Class	High-Hazard Protection Level	Storage			Use — Closed Systems			Use — Ope Systems	
			Solid Pounds	Liquid Gallons (lb)	Gas (at NTP) ft^3 (lb)	Solid Pounds	Liquid Gallons (lb)	Gas (at NTP) ft^3 (lb)	Solid Pounds	Liqu Gallo (lb
Physical Hazard Materials										
Corrosive	N/A	4	5000[a,b]	500[a,b]	N/A	5000[b]	500[b]	N/A	1000[b]	100
Corrosive gas [**55:** Table 6.3.1.1]	Gaseous	4	N/A	N/A	810[a,b]	N/A	N/A	810[a,b]	N/A	N/A
	-	Liquefied	4	N/A	N/A	(150)[a,b]	N/A	N/A	(150)[a,b]	N/A
Highly toxic	N/A	4	10[a,b]	(10)[a,b]	N/A	10[b]	(10)[b]	N/A	3[b]	(3)
Highly toxic gas [**55:** Table 6.3.1.1]	Gaseous	4	N/A	N/A	20[b,o]	N/A	N/A	20[b,o]	N/A	N/A
	-	Liquefied	4	N/A	N/A	(4)[b,o]	N/A	N/A	(4)[b,o]	N/A
Toxic	N/A	4	500[a,b]	(500)[a,b]	N/A	500[b]	(500)[b]	N/A	125[b]	(125
Toxic gas	Gaseous	4	N/A	N/A	810[a,b]	N/A	N/A	810[a,b]	N/A	N/A
	-	Liquefied	4	N/A	N/A	(150)[a,b]	N/A	N/A	(150)[a,b]	N/A

For SI units, 1 lb = 0.454 kg; 1 gal = 3.785 L; 1 ft^3 = 0.0283 m^3. Where quantities are indicated in pounds and when the weight per gallon of the liquid is not provided to the AHJ, a conversion factor of 10 lb/gal (1.2 kg/L) shall be used.

NTP: Measured at normal temperature and pressure[70°F (21°C) and 14.7 psi (101.3 kPa)].

N/A: Not applicable. NL: Not limited. NP: Not permitted. UD: Unclassified detonable.

Notes:

(1) The hazardous material categories and MAQs that are shaded in this table are not regulated by NFPA 400 but are provided here for informational purposes. See Chapter 2 of NFPA 400 for the reference code or standard governing these materials and establishing the MAQs. In accordance with 1.1.1.2 of NFPA 400, materials having multiple hazards that fall within the scope of NFPA 400 shall comply with NFPA 400.

(2) Table values in parentheses correspond to the unit name in parentheses at the top of the column. The aggregate quantity in use and storage is not permitted to exceed the quantity listed for storage.

(3) The use of explosive materials required by federal, state, or municipal agencies while engaged in normal or emergency performance of duties is not required to be limited. The storage of explosive materials is required to be in accordance with the requirements of NFPA 495.

(4) The storage and use of explosive materials in medicines and medicinal agents in the forms prescribed by the official United States Pharmacopeia or the National Formulary are not required to be limited.

(5) The storage and use of propellant-actuated devices or propellant-actuated industrial tools manufactured, imported, or distributed for their intended purposes are required to be limited to 50 lb (23 kg) net explosive weight.

[a]Quantities are permitted to be increased 100 percent where stored or used in approved cabinets, gas cabinets, exhausted enclosures, gas rooms explosives magazines, or safety cans, as appropriate for the material stored, in accordance with NFPA 400. Where footnote b also applies, the increase for both footnote a and footnote b is permitted to be applied accumulatively.

[b]Maximum quantities are permitted to be increased 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with NFPA 13. Where footnote c also applies, the increase for both footnote c and footnote d is permitted to be applied accumulatively.

[c]Medicines, foodstuffs, cosmetics, and other consumer products that contain not more than 50 percent by

volume of water-miscible flammable or combustible liquids, with the remainder of the product consisting of components that do not burn, are not limited where packaged in individual containers that do not exceed a 1.3-gal(5 L) capacity. *(See 9.1.4 of NFPA 30.)*

[d]The permitted quantities are not limited in a building equipped throughout with an automatic sprinkler system installed in accordance with ~~NFPA 13~~ 55.3.1.1(1) and designed in accordance with the protection criteria contained in Chapter 16 of NFPA 30.

[e]None allowed in unsprinklered buildings unless stored or used in gas rooms, approved gas cabinets, or exhausted enclosures, as specified in NFPA 400.

[f]With pressure-relief devices for stationary or portable containers vented directly outdoors or to an exhaust hood. [**55:** Table 6.3.1.1]

[g]Flammable gases in the fuel tanks of mobile equipment or vehicles are permitted to exceed the MAQ where the equipment is stored and operated in accordance with NFPA 400.

[h]Additional storage locations are required to be separated by a minimum of 300 ft (92 m).

[i]In mercantile occupancies, storage of LP-Gas is limited to a maximum of 200 lb (91 kg) in nominal 1 lb (0.45 kg) LP-Gas containers.

[j]See NFPA 58 for liquefied petroleum gas (LP-Gas) requirements. LP-Gas is not within the scope of NFPA 400.

[k]Containing not more than the MAQ of Class IA, Class IB, or Class IC flammable liquids, individually, per control area.

[l]Permitted only in buildings equipped throughout with an automatic sprinkler system in accordance with NFPA 13.

[m]A maximum quantity of 220 lb (99 kg) of solid or 22 gal (83 L) of liquid Class 3 oxidizer is permitted where such materials are necessary for maintenance purposes, operation, or sanitation of equipment. Storage containers and the manner of storage are required to be approved.

[n]The permitted quantities are not limited in a building equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.

[o]Allowed only where stored or used in gas rooms, approved gas cabinets, or exhausted enclosures, as specified in NFPA 400.

[**400:** Table 5.2.1.1.3]

Statement of Problem and Substantiation for Public Input

Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

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Submittal Date: Tue Jun 01 14:45:56 EDT 2021
Committee: BLD-IND

Committee Statement

Resolution: This material is within an extracted section from NFPA 400.

Public Input No. 136-NFPA 5000-2021 [Section No. 34.1.3.2.1]

34.1.3.2.1

The MAQ of hazardous materials per control area in occupancies other than mercantile, storage, or industrial occupancies shall be as specified in Table 34.1.3.2.1.

Table 34.1.3.2.1 Maximum Allowable Quantities (MAQ) of Hazardous Materials per Control Area in Occupancies Other than Mercantile, Storage, or Industrial Occupancies

Material	Class	Solid Pounds	Liquid Gallons (lb)	Gas (at NTP) ft^3 (lb)	
Flammable and combustible liquid[a,b,c]	I and II	N/A	10	N/A	
	-	IIIA	N/A	60	N/A
	-	IIIB	N/A	120[d]	N/A
Cryogenic fluid	Flammable	N/A	10	N/A	
	-	Oxidizing	N/A	10	N/A
Explosives[e,f,g,h]	See Note 1.	See Note 1.	See Note 1.	See Note 1.	
Flammable gas[b]	Gaseous	N/A	N/A	NP[i]	
	-	Liquefied	N/A	N/A	NP[i,j]
	-	Liquefied petroleum (LP)	N/A	N/A	(20)[k]
Flammable solid	N/A	5	N/A	N/A	
Oxidizers	4	NP	NP	N/A	
	-	3	10[l]	1 gal[l]	N/A
	-	2	250	25	N/A
	-	1	4,000[m]	400[m]	N/A
Oxidizing gas	Gaseous	N/A	N/A	NP[i]	
	-	Liquefied	N/A	N/A	NP[i]
Organic peroxides	I	NP	NP	N/A	
	-	IIA	NP	NP	N/A -
	IIB	NP	NP	N/A	
	-	III	25	(25)	N/A
	-	IV	NL	NL	N/A
	-	V	NL	NL	N/A
Pyrophoric materials	N/A	1[n]	(1)[n]	NP	
Unstable (reactive)	4	¼	(¼)	NP	
	-	3	1	(1)	NP
	-	2	10	(10)	NP[j]
	-	1	NL	NL	NP

Table 34.1.3.2.1 *Continued*

Material	Class	Solid Pounds	Liquid Gallons (lb)	Gas (at NTP) ft^3 (lb)	
Water-reactive	3	1	(1)	N/A	
	-	2	10	(10)	N/A
	-	1	NL	NL	N/A
Corrosives	N/A	1,000	100	NP	
Highly toxic	N/A	3	(3)	NP[o]	
Toxic	N/A	125	(125)	NP[o]	

For SI units, 1 lb = 0.454 kg; 1 gal = 3.785 L, 1 ft^3 = 0.0283 m^3. Where quantities are indicated in pounds and when the weight per gallon of the liquid is not provided to the AHJ, a conversion factor of 10 lb/gal (1.2 kg/L) shall be used.

NTP: Measured at normal temperature and pressure [70°F (21°C) and 14.7 psi (101 kPa)]. N/A: Not applicable. NP: Not permitted. NL: Not limited.

Notes:

(1) The hazardous material categories and MAQs that are shaded in this table are not regulated by NFPA 400 but are provided here for informational purposes. See Chapter 2 of NFPA 400 for the reference code or standard governing these materials and establishing the MAQs. In accordance with 1.1.1.2 of NFPA 400, materials having multiple hazards that fall within the scope of NFPA 400 shall comply with NFPA 400.

(2) Table values in parentheses correspond to the unit name in parentheses at the top of the column. The aggregate quantity in use and storage is not permitted to exceed the quantity listed for storage.

[a]Storage in excess of 10 gal (38 L) of Class I and Class II liquids combined or 60 gal (227 L) of Class IIIA liquids is permitted where stored in safety cabinets with an aggregate quantity not to exceed 180 gal (681 L).

[b]Fuel in the tank of operating mobile equipment is permitted to exceed the specified quantity where the equipment is operated in accordance with NFPA 400.

[c]Medicines, foodstuffs, cosmetics, and other consumer products that contain not more than 50 percent by volume of water-miscible flammable or combustible liquids, with the remainder of the product consisting of components that do not burn, are not limited, where packaged in individual containers that do not exceed a 1.3-gal(5 L) capacity. *(See 9.1.4 of NFPA 30.)*

[d]Storage shall be permitted to be increased 100 percent in educational, day care, and health care occupancies if the building is protected throughout with an automatic sprinkler system installed in accordance with ~~NFPA 13.~~ 55.3.1.1(1).

[e]The use of explosive materials required by federal, state, or municipal agencies while engaged in normal or emergency performance of duties is not required to be limited. The storage of explosive materials is required to be in accordance with the requirements of NFPA 495.

[f]The storage and use of explosive materials in medicines and medicinal agents in the forms prescribed by the official United States Pharmacopeia or the National Formulary are not required to be limited.

[g]The storage and use of propellant-actuated devices or propellant-actuated industrial tools manufactured, imported, or distributed for their intended purposes are required to be limited to 50 lb (23 kg) net explosive weight.

[h]The storage and use of small arms ammunition, and components thereof, are permitted where in accordance with NFPA 495.

[i]Containers, cylinders, or tanks not exceeding 250 ft^3 (7.1 m^3) content measured at NTP and used for maintenance purposes, patient care, or operation of equipment shall be permitted.

[j]In residential occupancies consisting of lodging and rooming houses, hotels, dormitories, apartments, and residential board and care facilities, storage containers are not permitted to exceed 0.325 ft^3 (0.0092 m^3).

[k]In educational occupancies, allowed in laboratories only; additional 20 lb (9 kg) units are permitted where minimum 20 ft (6.1 m) separation is provided.

[l]A maximum quantity of 220 lb (99 kg) of solid or 22 gal (83 L) of liquid Class 3 oxidizer is permitted where such materials are necessary for maintenance purposes, operation, or sanitation of equipment. Storage containers and the manner of storage are required to be approved.

[m]Quantities are not limited in educational, day care, and health care occupancies protected throughout by automatic sprinkler systems in accordance with NFPA 13.

[n]Not permitted in health care occupancies.

[o]Gas containers or cylinders not exceeding 20 ft^3 (0.57 m^3) content measured at NTP are permitted to be stored or used within gas cabinets or exhausted enclosures of educational occupancies.

[**400:**Table 5.2.1.2.1]

Statement of Problem and Substantiation for Public Input

Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the

use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

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Committee: BLD-IND

Committee Statement

Resolution: This material is within an extracted section from NFPA 400.

Public Input No. 137-NFPA 5000-2021 [Section No. 34.1.3.3.1]

34.1.3.3.1 Maximum Allowable Quantity (MAQ) Increases for Mercantile, Storage, and Industrial Occupancies.

The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials permitted within a single control area of a mercantile, storage, or industrial occupancy shall be permitted to exceed the MAQ specified in Table 34.1.3.1 without complying with Protection Level 2, Protection Level 3, or Protection Level 4, provided that the quantities comply with Table 34.1.3.3.1(a) and Table 34.1.3.3.1(b) and that materials are displayed and stored in accordance with the special limitations on storage height, storage density, and other controls specified in NFPA 1 and NFPA 400.

Table 34.1.3.3.1(a) Maximum Allowable Quantity (MAQ) per Indoor and Outdoor Control Area for Selected Hazard Categories in Mercantile, Storage, and Industrial Occupancies

	Maximum Allowable Quantity[a,b]			
	Solids		Liquids	
Hazard Category	lb	kg	gal	L
Physical Hazard Materials: Nonflammable and Noncombustible Solids and Liquids				
Oxidizers				
Class 3	1,350	616	135	511
Class 2	2,250	1,021	225	852
Class 1	18,000[c]	8,165[c]	1,800[c]	6,814[c]

Note: Maximum quantities for hazard categories not shown are required to be in accordance with Table 34.1.3.1.

[a]Maximum quantities are permitted to be increased 100 percent in buildings that are sprinklered in accordance with ~~NFPA 13.~~ 55.3.1.1(1). Where footnote b also applies, the increase for both footnotes is permitted to be applied.

[b]Maximum quantities are permitted to be increased 100 percent where stored in approved storage cabinets in accordance with NFPA 1. Where footnote a also applies, the increase for both footnotes is permitted to be applied.

[c]Quantities are not limited in buildings protected by an automatic sprinkler system complying with ~~NFPA 13.~~ 55.3.1.1(1).

[**400:**Table 5.2.1.5.3(a)]

Table 34.1.3.3.1(b) Maximum Allowable Quantity (MAQ) per Indoor and Outdoor Control Area for Selected Hazard Categories in Mercantile and Storage Occupancies

	Maximum Allowable Quantity[a,b]			
	Solids		Liquids	
Hazard Category	lb	kg	gal	L
Physical Hazard Materials: Nonflammable and Noncombustible Solid and Liquids				
Unstable (reactive)				
Class 3	550	250	55	208
Class 2	1,150	522	115	435
Water-reactive				
Class 3	550	250	55	208
Class 2	1,150	522	115	435
Health Hazard Materials: Nonflammable and Noncombustible Solids and Liquids				
Corrosive	10,000	4,536	1,000	3,785
Highly toxic[c]	20	9	2	8
Toxic[c]	1,000	454	100	378

Note: Maximum quantities for hazard categories not shown are required to be in accordance with Table 34.1.3.1.

[a]Maximum quantities are permitted to be increased 100 percent in buildings that are sprinklered in accordance with ~~NFPA 13.~~ 55.3.1.1(1). This increase shall not apply to highly toxic solids and liquids. Where footnote b also applies, the increase for both footnotes can be applied.

[b]Maximum quantities are permitted to be increased 100 percent where stored in approved storage cabinets

in accordance with NFPA 1. This increase shall not apply to highly toxic solids and liquids. Where footnote a also applies, the increase for both footnotes is permitted to be applied.

[c]Toxic or highly toxic solids or liquids displayed in original packaging in mercantile or storage occupancies and intended for maintenance, operation of equipment, or sanitation when contained in individual packaging not exceeding 100 lb (45.4 kg) shall be limited to an aggregate of 1200 lb (544.3 kg) or 120 gal (454.2 L).

[**400:**Table 5.2.1.5.3(b)]

Statement of Problem and Substantiation for Public Input

Across the model codes, as it relates to automatic fire sprinkler systems, the proper code section that stipulates the use and installation of a particular fire protection system is provided. The proper code language is to reference that section and not the system type. This ensures that all the proper charging language is being applied. Not referencing the proper section could possibly cause misinterpretation and vital requirements being left out.

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Committee Statement

Resolution: This material is within an extracted section from NFPA 400.

Public Input No. 121-NFPA 5000-2021 [Section No. 34.3.7.2.1.2(A)]

(A)

The aggregate quantity of hazardous materials in storage and in use within a single fabrication area shall not exceed one of the following, whichever is greater:

(1) Quantities set forth in Table 34.3.7.2.1.2(A)

(2) MAQ per control area set forth in Table 34.1.3.1

Table 34 Extract Table 5 .3 5 .7. 2 .1.2(A) Quantity Limits for Hazardous Materials in a Single Fabrication Area [a]

Hazard Category Solids

(lb/ft ^{2}) Liquids

(gal/ft ^{2}) Gas

(ft ^{3} at

NTP/ft ^{2}) Combustible liquid - - - II NA 0.01 NA IIIA NA 0.02 NA IIIB NA NL NA Combination

Classes I,

II, and IIIA NA 0.04 NA Cryogenic - - - Flammable NA NA See

footnote b. Oxidizing NA NA 1.25 Explosives See

footnote c. See

footnote c. See

footnote c. Flammable gas - - - Gaseous NA NA See

footnote b. Liquefied NA NA See

footnote b. Flammable liquid - - - IA NA 0.0025 NA IB NA 0.025 NA IC NA 0.025 NA Combination

Classes IA,

IB, and IC NA 0.025 NA Combination

Classes I,

II, and IIIA NA 0.04 NA Flammable solid 0.001 NA NA Organic peroxide - - - Unclassified detonable See

footnote c. See

footnote c. NA I See

footnote c. See

footnote c. NA II 0.025 0.0025 NA III 0.1 0.01 NA IV NL NL NA V NL NL NA Oxidizing gas - - - Gaseous NA NA 1.25 Liquefied NA NA 1.25 Combination of

gaseous and

liquefied NA NA 1.25 Oxidizer - - - 4 See

footnote c. See

footnote c. NA 3 0.003 0.003 NA 2 0.003 0.003 NA 1 NL NL NA Combination oxidizer

Classes 1,

2, and 3 0.003 0.003 NA Pyrophoric See

~~footnote c.~~ ~~0.00125~~ ~~See~~

~~footnotes b~~

~~and d.~~ ~~Unstable reactive~~ ~~- - -~~ ~~4~~ ~~See~~

~~footnote c.~~ ~~See~~

~~footnote c.~~ ~~See~~

~~footnote c.~~ ~~3~~ ~~0.025~~ ~~0.0025~~ ~~See~~

~~footnote c.~~ ~~2~~ ~~0.1~~ ~~0.01~~ ~~See~~

~~footnote c.~~ ~~1~~ ~~NL~~ ~~NL~~ ~~NL~~ ~~Water-reactive~~ ~~- - -~~ ~~3~~ ~~See~~

~~footnote c.~~ ~~0.00125~~ ~~NA~~ ~~2~~ ~~0.25~~ ~~0.025~~ ~~NA~~ ~~1~~ ~~NL~~ ~~NL~~ ~~NA~~ ~~Corrosive~~ ~~NL~~ ~~NL~~ ~~NL~~ ~~Highly toxic~~ ~~NL~~ ~~NL~~ ~~See~~

~~footnote b.~~ ~~Toxic~~ ~~NL~~ ~~NL~~ ~~See~~

~~footnote b.~~

~~For SI units, 1 lb = 0.454 kg; 1 gal = 3.785 L; 1 ft ^{2} = 0.093 m ^{2} ; 1 ft ^{3} = 0.0283 m ^{3} .~~

~~NTP: Normal temperature and pressure [measured at 70°F (21°C) and 14.7 psi (30 kPa)].~~

~~NA: Not applicable.~~

~~NL: Quantity of hazardous materials in a single fabrication area not limited.~~

~~a~~ ~~Hazardous materials within piping are not permitted to be included in the calculated quantities.~~

~~b~~ ~~The aggregate quantity of flammable, pyrophoric, toxic, and highly toxic gases is not to exceed a density limit of 0.2 ft ^{3} per ft ^{2} at NTP.~~

~~c~~ ~~The quantity of hazardous materials in a single fabrication is not permitted to exceed the MAQ per control area in Table 34.1.3.1.~~

~~d~~ ~~The aggregate quantity of pyrophoric gases in the building is not permitted to exceed quantity limits set forth in Table 34.3.4.4.1.~~

from NFPA 1 to be Table 34.3.7.2.1.2(A)

Statement of Problem and Substantiation for Public Input

The table in NFPA 5000 conflicts with NFPA 318 which has the same table. The table in NFPA 5000 should be extracted from NFPA 318.

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Committee: BLD-IND

Committee Statement

Resolution: FR-8226-NFPA 5000-2021

Statement: This table is not consistent with a similar Table in NFPA 318. By extracting the table it will make the table remain consistent with NFPA 318, for which the technical committee has expertise for semiconductor fabrication

facilities.

The (A) numbering of the section was also removed as FR-8227 deletes subsection (B) and per the manual of style there cannot be a single subsection.

Public Input No. 119-NFPA 5000-2021 [Section No. 34.3.7.2.1.2(B)]

~~(B)~~ –

~~Storage of hazardous materials classified as HPM shall be further limited such that the quantity stored within a single fabrication area does not exceed the MAQ per control area set forth in Table 34.1.3.1 .~~

Statement of Problem and Substantiation for Public Input

This section appears to be an error and in fact conflicts with 34.3.7.2.1.2 (A). A similar proposal was recently submitted to the International Building Code and the Committee Recommendation is for Approval as Submitted. All testimony indicated that the paragraph appeared to be an error.

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Committee: BLD-IND

Committee Statement

Resolution: FR-8227-NFPA 5000-2021
Statement: This section appears to be in error and conflicts with 34.3.7.2.1.2(A).

Public Input No. 34-NFPA 5000-2021 [Section No. 34.3.7.3.1.3]

34.3.7.3.1.3 Installation of HPM Piping and Tubing in Exit Access Corridors and Above Other Occupancies.

The installation of HPM piping and tubing within the space defined by the walls of exit access corridors and the floor or roof above, or in concealed spaces above other occupancies, shall be in accordance with all of the following, except for transverse crossings of the corridors by supply piping that is enclosed within a ferrous pipe or tube for the width of the corridor:

(1) Automatic sprinklers shall be installed within the space, unless the space is less than 6 in. (150 mm) in the least dimension.

(2) Ventilation with not less than six air changes per hour shall be provided, and the space shall not be used to convey air from any other area.

(3) Where the piping or tubing is used to transport HPM liquids, a receptor that meets all of the following criteria shall be installed below such piping or tubing:

(4) The receptor shall be designed to collect any discharge or leakage and drain it to an approved location.

(5) The 1-hour enclosure shall not be used as part of the receptor.

(6) HPM supply piping and tubing and HPM nonmetallic waste lines shall meet all of the following criteria:

(7) The lines shall be separated from the exit access corridor and from areas not complying with Protection Level 5 by construction as required for walls or partitions that have a fire resistance rating of not less than 1 hour.

(8) Where gypsum

~~wallboard is~~

(a) panels are used, joints on the piping side of the enclosure shall not be required to be taped, provided that the joints occur over framing members.

(b) Access openings into the enclosure shall be protected by approved fire-rated assemblies.

(9) Readily accessible manual or automatic remotely activated, fail-safe emergency shutoff valves shall be installed on piping and tubing other than waste lines at all of the following locations:

(10) At branch connections into the fabrication area

(11) At entries into exit access corridors

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

NOTE: Terra has destroyed the formatting here. The only change is replacing "wallboard is" with "panels are" in item (4)(b).

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Submittal Date: Tue May 18 11:10:15 EDT 2021
Committee: BLD-IND

Committee Statement

Resolution: FR-8194-NFPA 5000-2021
Statement: This correlates with terminology used within the industry.

Public Input No. 35-NFPA 5000-2021 [Section No. 37.1.3.1]

37.1.3.1 Parapets Not Required.

Parapets shall not be required where any of the following conditions exist:

(1) Where unprotected openings are permitted

(2) Where the roof slopes up more than 4 in. in 12 in. (100 mm in 305 mm) from the back of the exterior wall of the building, and the roof covering has a Class A rating

(3) Where the exterior wall of the building is located 20 ft (6100 mm) from the property line or on an alley or public way 20 ft (6100 mm) or more wide

(4) Where the entire building is protected by an automatic sprinkler system in accordance with NFPA 13

(5) Where the roof is constructed of noncombustible or limited-combustible materials and the joint between the wall and the roof is sealed using an approved fire penetration seal or fireblock

(6) In Type III (211), Type IV, and Type V (111) construction where all of the following conditions are met:

(7) The joint between the wall and the roof is sealed using an approved penetration seal or fireblock.

(8) The roof deck meets one of the following criteria:

(9) For a distance of at least 48 in. (1220 mm) from the wall, the roof deck has no openings and is of noncombustible or limited-combustible materials or fire-retardant-treated wood.

(10) For a distance of at least 48 in. (1220 mm) from the wall, the roof deck has no openings and **5**/**8** in. (16 mm)

~~Type~~

(a)

i. type X gypsum

~~board is~~

(a)

i. panels are directly beneath the underside of the roof deck, or is supported by a minimum 2 in. (51 mm) ledger at the roof deck, and is attached to the roof framing members.

(b) The entire roof covering has a minimum rating of Class B.

(c) Roof framing elements that are within 60 in. (1525 mm) of the exterior wall are parallel to the exterior wall and are protected to the same fire resistance rating required for the exterior wall.

(d) Roof framing elements that are perpendicular to the wall and all supporting elements of the roof are protected to the same fire resistance rating required for the exterior wall for their full span (roof frame) or height (supporting elements).

(11) Where the building has an area of not more than 1000 ft^2 (93 m^2) on any floor

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

NOTE: Terra has destroyed the formatting here. The only change is from "Type X gypsum board is" to "type X gypsum panels are" in item (6)(b)(ii)

Submitter Information Verification

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Committee: BLD-SCM

Committee Statement

Resolution: FR-8116-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 50-NFPA 5000-2021 [Section No. 37.1.5]

37.1.5 Vertical and Lateral Flame Propagation on Exterior Walls.

37.1.5.1

Exterior wall assemblies on buildings of Type I, Type II, Type III, or Type IV construction that are greater than 40 ft (12,192 mm) in height above grade plane and contain combustible materials shall be tested in accordance with and meet the conditions of acceptance of NFPA 285~~, unless otherwise permitted in 37 . 1.5.2.~~

37.1.5.1.1

When window openings are designed as part of the installed assembly, the edge of the opening shall be protected by providing the same protection as provided for the actual test.

37.1.5.2 –

~~Where the water-resistive barrier is the only combustible component, exterior wall assemblies shall not be required to be~~

Testing for vertical and lateral flame, in accordance with NFPA 285, of exterior wall assemblies on buildings of Type I, Type II, Type III, or Type IV construction that contain combustible materials shall be as required below:

(1) Exterior wall assemblies in buildings of any height containing foam plastic insulation shall comply with 48.4.

(2) Exterior wall assemblies in buildings that are greater than 40 ft (12,192 mm) in height above grade plane containing a combustible water-resistive barrier shall comply with 37.1.5.3.

(3) Exterior wall assemblies in buildings that are greater than 40 ft (12,192 mm) in height above grade plane containing a Metal Composite Material (MCM) system shall comply with 37.4.

(4) Exterior wall assemblies in buildings of any height containing an Exterior Insulation and Finish System (EIFS) system shall comply with 37.5.

(5) Exterior wall assemblies in buildings that are greater than 40 ft (12,192 mm) in height above grade plane containing a High-Pressure Decorative Exterior-Grade Compact Laminate (HPL) system shall comply with 37.6.

(6) Exterior wall assemblies in buildings that are greater than 40 ft (12,192 mm) in height above grade plane containing an Insulated Metal Panel (IMP) system shall comply with 37.7.

37.1.5.3 _

Exterior wall assemblies containing containing a combustible water-resistive barrier shall be tested in accordance with 37.1.5- ~~if~~ unless either of the following conditions apply:

(1) The exterior wall assembly has a wall covering of masonry (including brick), concrete, stone, terra cotta, stucco, or corrosion-resistant steel with minimum thicknesses in accordance with Table 37.1.5.2.

(2) The water-resistive barrier complies with both of the following:

(a) The water-resistive barrier has a peak heat release rate of less than 13.2 (Btu/s)/ft^2 (150 kW/m^2), a total heat release of less than 1761 Btu/ft^2 (20 MJ/m^2), and an effective heat of combustion of less than 7738.6 Btu/lb (18 MJ/kg) as determined in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation, and at an incident radiant heat flux of 4.4 (Btu/s)/ft^2 (50 kW/m^2).

(b) The water-resistive barrier has a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined 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*, with test specimen preparation and mounting in accordance with ASTM E2404, *Standard Practice for Specimen Preparation and Mounting of Textile, Paper or Polymeric (including Vinyl) and Wood Wall or Ceiling Coverings, Facings and Veneers, to Assess Surface Burning Characteristics*.

Table 37.1.5.2 Minimum Thicknesses for Exterior Wall Covering Materials

Covering Type	Minimum Thickness (in.)	Minimum Thickness (mm)
Masonry	—	—
Anchored (including brick)	2.0	50.8
Adhered	0.25	6.4
Steel (corrosion resistant)	0.0149	0.38
Stone	—	—
Cast artificial, anchored	1.5	38.1
Natural, adhered	2.0	50.8
Stucco or exterior cement plaster*	—	—
Three-coat work-over	—	—
Metal plaster base	0.875	22.2
Unit masonry	0.625	15.9
Cast-in-place or precast concrete	0.625	15.9
Two-coat work-over	—	—
Unit masonry	0.500	12.7
Cast-in-place or precast concrete	0.375	9.5
Terra cotta	—	—
Anchored	1.0	25.4
Adhered	0.25	6.4

*Exclusive of texture.

37.1.5.3 4

For the purposes of 37.1.5.3 , fenestration products and flashing of fenestration products shall not be considered part of the water-resistive barrier.

Statement of Problem and Substantiation for Public Input

This PI provides a road map for testing. It also adds two common exterior wall covering systems (HPLs and IMPs) which are not specifically addressed in the code.
The change to the section on water-resistive barriers is intended to write the section in a positive way rather than as an exception.
Associated PIs will create proposed new sections for HPL and IMP.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 51-NFPA 5000-2021 [New Section after 37.5.4.2]	
Public Input No. 52-NFPA 5000-2021 [New Section after 37.5.4.2]	
Public Input No. 53-NFPA 5000-2021 [Section No. 37.6]	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
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Submittal Date: Sun May 23 13:15:14 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8135-NFPA 5000-2021

Statement: The committee agrees with the submitter, with editorial changes from the submitted Public Input, that specifying language prior to product-specific criteria is needed. This change helps to clarify which systems need to be tested and in what manner.

Public Input No. 20-NFPA 5000-2021 [Section No. 37.1.5.1]

37.1.5.1*

Exterior wall assemblies on buildings of Type I, Type II, Type III, or Type IV construction that are greater than 40 ft (12,192 mm) in height above grade plane and contain combustible materials shall be tested in accordance with and meet the conditions of acceptance of NFPA 285, unless otherwise permitted in 37.1.5.2.

37.1.5.1.1

When window openings are designed as part of the installed assembly, the edge of the opening shall be protected by providing the same protection as provided for the actual test.

A.37.1.5.1 This code does not require testing of exterior wall assemblies in accordance with NFPA 285 for buildings of Type V construction. This code does not require testing of exterior wall assemblies in accordance with NFPA 285 on buildings of Type I, Type II, Type III, or Type IV construction that are not greater than 40 ft (12,192 mm) in height above grade plane unless the exterior wall assembly contains foam plastics. Section 48.4.1.1.2 requires that exterior wall assemblies containing foam plastics on buildings of Type I, Type II, Type III, or Type IV construction of any height be tested in accordance with, and comply with the criteria of, NFPA 285.

Statement of Problem and Substantiation for Public Input

This code does not have any requirement that an NFPA 285 test need to be conducted for buildings under 40 ft, unless they contain foam plastic insulation.
This clarification as an annex note is consistent with the requirements of section 7.2.3.2.12 on exterior non-bearing walls, which states that walls are allowed to be constructed (in buildings of Type I and II construction) are allowed to contain exterior wall assemblies that have been tested (and complied with) the requirements of NFPA 285. Chapter 48, and its sections on foam plastic, clarify that whenever an exterior wall assembly contains foam plastic insulation the exterior wall assembly must be tested to NFPA 285. This section of the code (37.1.5.1) clarifies that "exterior wall assemblies on buildings of Type I, Type II, Type III, or Type IV construction that are greater than 40 ft (12,192 mm) in height above grade plane and contain combustible materials shall be tested in accordance with and meet the conditions of acceptance of NFPA 285". This means that no testing is required for buildings of less than 40 feet in height (again, unless they contain foam plastic).

Section 48.3.3.4(4) contains a special case for small buildings with walls consisting of insulated metal panels (IMPs), with foam plastic insulation cores. As such, however, they still need to meet NFPA 285.

Another special case that might be worth adding to this annex note is the case of EIFS (Exterior Insulation and Finish Systems), which are required by the manufacturers to comply with ASTM E2568, Standard Specification for PB Exterior Insulation and Finish Systems. In turn, ASTM E2568 requires that EIFS be tested to NFPA 285 for any height. An associated PI will add that requirement to the code.

This public input is being made on behalf of a task group of NFPA 5000 set up by Standards Council, namely the NFPA 101/5000, BLC/SCM/FUN/FIZ Task Group. It is chaired by Moriel Kaplan and composed of: Barry Badders, Ben Caldwell, Mark Chrisman, Paul Coats, David Collins, Richard Davis, Marcelo Hirschler, Bonnie Manley, Shamim Rashid-Sumar, Sarah Rice, and Jonathan Roberts.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 22-NFPA 5000-2021 [Section No. 37.5]	

Submitter Information Verification

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Submittal Date: Mon May 17 18:39:27 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8131-NFPA 5000-2021
Statement: The committee agreed with the submitter on this new annex note which clarifies the types of exterior wall assemblies that need to be tested to NFPA 285 and which do not.

Public Input No. 54-NFPA 5000-2021 [Section No. 37.1.5.2]

37.1.5.2

~~Where the~~ Exterior wall assemblies containing containing a combustible water-resistive barrier ~~is the only combustible component, exterior wall assemblies shall not be required to be~~ shall be tested in accordance with 37.1.5 ~~if either~~ unless either of the following conditions apply:

(1) The exterior wall assembly has a wall covering of masonry (including brick), concrete, stone, terra cotta, stucco, or corrosion-resistant steel with minimum thicknesses in accordance with Table 37.1.5.2.

(2) The water-resistive barrier complies with both of the following:

(a) The water-resistive barrier has a peak heat release rate of less than 13.2 (Btu/s)/ft^2 (150 kW/m^2), a total heat release of less than 1761 Btu/ft^2 (20 MJ/m^2), and an effective heat of combustion of less than 7738.6 Btu/lb (18 MJ/kg) as determined in accordance with ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation, and at an incident radiant heat flux of 4.4 (Btu/s)/ft^2 (50 kW/m^2).

(b) The water-resistive barrier has a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined 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*, with test specimen preparation and mounting in accordance with ASTM E2404, *Standard Practice for Specimen Preparation and Mounting of Textile, Paper or Polymeric (including Vinyl) and Wood Wall or Ceiling Coverings, Facings and Veneers, to Assess Surface Burning Characteristics*.

Table 37.1.5.2 Minimum Thicknesses for Exterior Wall Covering Materials

Covering Type	Minimum Thickness (in.)	Minimum Thickness (mm)
Masonry	—	—
Anchored (including brick)	2.0	50.8
Adhered	0.25	6.4
Steel (corrosion resistant)	0.0149	0.38
Stone	—	—
Cast artificial, anchored	1.5	38.1
Natural, adhered	2.0	50.8
Stucco or exterior cement plaster*	—	—
Three-coat work-over	—	—
Metal plaster base	0.875	22.2
Unit masonry	0.625	15.9
Cast-in-place or precast concrete	0.625	15.9
Two-coat work-over	—	—
Unit masonry	0.500	12.7
Cast-in-place or precast concrete	0.375	9.5
Terra cotta	—	—
Anchored	1.0	25.4
Adhered	0.25	6.4

*Exclusive of texture.

Statement of Problem and Substantiation for Public Input

The section is written as an exception and should be written in an affirmative manner. In fact, if the only combustible in an exterior wall assembly is a water-resistive barrier, the assembly has to be tested, unless the water resistive barrier meets the fire tests indicated or the exterior wall assembly has a covering as indicated.
This PI does not change the requirements but makes them clearer.

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Submittal Date: Sun May 23 14:57:39 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8103-NFPA 5000-2021
Statement: The committee agreed with the submitter. The section is written as an exception and should be written in an affirmative manner.

Public Input No. 79-NFPA 5000-2021 [Section No. 37.4.4.1]

37.4.4.1

The thermal barrier specified in 37.4.4(3) shall not be required where MCM meets either of the following conditions:

(1) MCM is installed as part of a balcony or similar architectural appendage or as exterior trim, and is not part of a common wall with the building interior .

(2) MCM is approved for the specific installation, based on tests conducted using the maximum thickness intended for use in accordance with one of the following:

(3) NFPA 286, with the acceptance criteria of 10.2.3.2

(4) UL 1040, *Fire Test of Insulated Wall Construction*

(5) ANSI/FM Approval 4880, *American National Standard for Evaluating the Fire Performance of Insulated Building Panel Assemblies and Interior Finish Materials*

(6) UL 1715, *Fire Test of Interior Finish Material*

Statement of Problem and Substantiation for Public Input

This proposal clarifies the intent that the thermal barrier is not needed for appendages such as balcony dividing walls or railings, but is still needed if the MCM is part of the common wall with the building interior.

Submitter Information Verification

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Submittal Date: Wed May 26 16:22:31 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8105-NFPA 5000-2021
Statement: The committee agreed with the submitter. This change clarifies application of this section.

Public Input No. 138-NFPA 5000-2021 [Section No. 37.4.5]

37.4.5

MCM installed on the exterior of buildings classified as Type III, Type IV or Type V construction to a maximum height of 40 ft (12 m) above grade plane shall not be required to comply with 37.4.4, provided that it meets either 37.4.5(1) or 37.4.5(2) and 37.4.5(3) as follows:

(1) Where the exterior wall has 60 in. (1525 mm) or less horizontal separation, the MCM shall not cover more than 10 percent of the exterior wall.

(2) Where the exterior wall has 60 in. (1525 mm) or less horizontal separation, the area of the exterior wall covered by the MCM shall not be limited.

(3) MCM shall meet the requirements of Class B in accordance with Chapter 10, based on the maximum thickness intended for use.

Statement of Problem and Substantiation for Public Input

When NFPA 285 was originally added to provide a means of testing an exterior wall assembly to verify that it would not lend itself to a self-propagating fire and not add a significant amount of fuel to the building construction. This proposal allows the exemption of this test for Types III, IV and V construction, but not for Types I and II. For Types I and II, the intent is for the potential fuel contribution of the construction to be limited. The requirement as currently written exempts MCM from this test for walls <= 40 ft. This not only allows the use of PE core MCM, which will not pass 285, but also the use of other (non-plastic) combustible insulating materials and combustible water resistive barriers. Typically EIFS is not exempted from the 285 test, yet fire loss experience is much worse with MCM. Adding a requirement of having a flame spread index of not more than 75, is not an adequate alternative test to NFPA 285.

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Submittal Date: Tue Jun 01 14:51:19 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: The committee determined that further changes to this section were not needed, and could conflict with requirements in other sections with Chapter 37. The change would require testing to NFPA 285 for buildings of less than 40 feet and that has not been the practice.

Public Input No. 22-NFPA 5000-2021 [Section No. 37.5]

37.5 Exterior Insulation and Finish Systems (EIFS).

Exterior insulation and finish systems (EIFS) used in exterior walls shall be in accordance with Section 37.5.

37.5.1 General.

The provisions of Section 37.5 shall govern the materials, construction, and quality of EIFS for use as non-load-bearing barrier walls and exterior cladding systems.

37.5.2 * Performance.

Exterior insulation and finish systems (EIFS) systems shall be constructed such that they meet the performance requirements contained in ASTM E2568, Standard Specification for PB Exterior Insulation and Finish Systems . *(new section to be inserted)*

A.37.5.2 ASTM E2568 requires that EIFS systems of any height above grade plane be tested in accordance with, and comply with the criteria of, NFPA 285.

37.5.3 Reference Standard.

EIFS shall be specified and installed in accordance with EIMA 99A, *Exterior Insulation and Finish Systems (EIFS)*.

37.5.3 34 Expansion Joints.

Expansion joints shall be provided in EIFS in the following locations:

(1) Where EIFS adjoin dissimilar construction

(2) Where building expansion joints occur

(3) Where prefabricated panels abut one another

(4) Where the substrate changes

(5) Where significant structural movement occurs due to changes in roofline, building shape, or structural system

(6) In the floor lines in multilevel wood frame construction

37.5.4 5 Quality Assurance.

37.5.4 5 .1 Manufacturer.

The manufacturer shall furnish a report certifying that the materials are in conformance with EIMA 99A, this *Code*, and the contract documents.

37.5.4 5 .2 Contractor.

The installing contractor shall have a certificate of instruction from the respective EIFS manufacturer's applicator training program.

(Also add ASTM E2568, Standard Specification for PB Exterior Insulation and Finish Systems, 2017a, into the section on referenced ASTM standards in Chapter 2 and the section on informational ASTM standards in Annex G.1.2.8)

Statement of Problem and Substantiation for Public Input

EIFS systems may or may not contain foam plastic insulation. However, the industry requires that they comply with ASTM E2568 and that standard requires that all exterior wall assemblies with EIFS systems be tested to NFPA 285, irrespective of building height. This clarification is important for the code.

If this PI is accepted it would be appropriate to add an added sentence to the proposed new section A.37.1.5.1. The proposed new section would read:
"A.37.1.5.1 This code does not require testing of exterior wall assemblies in accordance with NFPA 285 for buildings of Type V construction. This code does not require testing of exterior wall assemblies in accordance with NFPA 285 on buildings of Type I, Type II, Type III, or Type IV construction that are not greater than 40 ft (12,192 mm) in height above grade plane unless the exterior wall assembly contains foam plastics. Section 48.4.1.1.2 requires that exterior wall assemblies containing foam plastics on buildings of Type I, Type II, Type III, or Type IV construction of any height be tested in accordance with, and comply with the criteria of, NFPA 285. Section 37.5.2 requires that exterior wall

assemblies containing EIFS systems on buildings of Type I, Type II, Type III, or Type IV construction of any height be tested in accordance with, and comply with the criteria of, NFPA 285."

This public input is being made on behalf of a task group of NFPA 5000 set up by Standards Council, namely the NFPA 101/5000, BLC/SCM/FUN/FIZ Task Group. It is chaired by Moriel Kaplan and composed of: Barry Badders, Ben Caldwell, Mark Chrisman, Paul Coats, David Collins, Richard Davis, Marcelo Hirschler, Bonnie Manley, Shamim Rashid-Sumar, Sarah Rice, and Jonathan Roberts.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 20-NFPA 5000-2021 [Section No. 37.1.5.1]	

Submitter Information Verification

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Submittal Date: Mon May 17 18:57:47 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8106-NFPA 5000-2021
Statement: The committee agreed with the submitter's input. Adding this text provides reference to the applicable ASTM document and its requirements.

Public Input No. 51-NFPA 5000-2021 [New Section after 37.5.4.2]

37.6 High-Pressure Decorative Exterior-Grade Compact Laminate (HPL) Systems

37.6.1 High-Pressure Decorative Exterior-Grade Compact Laminates (HPL) intended for use in exterior wall assemblies on buildings of Type I, Type II, Type III, or Type IV construction, shall comply with this section, in addition to other applicable requirements of the code.

37.6.2 Surface-burning characteristics. Unless otherwise specified, the HPL system shall have a flame spread index of 25 or less and a smoke-developed index of 450 or less when tested in the minimum and maximum thicknesses intended for use in accordance with ASTM E84 or UL 723.

37.6.3 Vertical and lateral flame propagation. Where installed on buildings that are greater than 40 feet (12,190 mm) above grade plane, the exterior wall assembly shall be tested to, and comply with the requirements of, NFPA 285.

37.6.4 Thermal barriers. The HPL system shall be separated from the interior of a building by an approved thermal barrier in accordance with 48.3.3, unless exempted by 37.6.5.

37.6.5 Thermal barrier not required. The thermal barrier specified in 37.6.4 shall not be required if the HPL system meets the criteria of either 37.6.5.1 or 37.6.5.2.

37.6.5.1 The HPL system shall comply with the requirements of UL 1040, or of UL 1715 or with the requirements of 10.2.3.2 when tested in accordance with NFPA 286, with the testing performed with the HPL in the minimum and maximum thicknesses intended for use and with the HPL system being tested including all details used in the installation.

37.6.5.2. The HPL system shall be used only in architectural trim or similar embellishments, or in balconies or similar projections.

37.6.6 Fire resistance rating. The HPL system shall not reduce the fire resistance rating of the exterior wall to which the system is attached.

37.6.7 Foam plastic insulation. If the HPL system contains foam plastic insulation, the HPL system shall comply with the requirements of section 48.4.

37.6.8 Labeling. The HPL system shall be labeled.

37.6.9 Type V construction. IMP systems shall be permitted for use in Type V construction.

Add also definition into chapter 3, as follows:

High-Pressure Decorative Exterior-Grade Compact Laminate System. A system which consists of multiple layers of cellulose fibrous material impregnated with thermosetting resins and bonded together by a high-pressure process to form a homogeneous nonporous core product intended for use as a part of the exterior wall assembly of a building.

Statement of Problem and Substantiation for Public Input

This proposed new section contains all the fire safety requirements for HPL systems. It is consistent with the remainder of the code and provides the link to the guidance in PI 50.
Existing section 37.6 is proposed to be renumbered and not replaced.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 50-NFPA 5000-2021 [Section No. 37.1.5]	
Public Input No. 52-NFPA 5000-2021 [New Section after 37.5.4.2]	
Public Input No. 52-NFPA 5000-2021 [New Section after 37.5.4.2]	
Public Input No. 53-NFPA 5000-2021 [Section No. 37.6]	

Submitter Information Verification

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Submittal Date: Sun May 23 13:45:33 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: See FR-8124.

Public Input No. 52-NFPA 5000-2021 [New Section after 37.5.4.2]

37.7 Insulated Metal Panel Systems

37.7.1 Insulated Metal Panel Systems (IMPs) intended for use in exterior wall assemblies on buildings of Type I, Type II, Type III, or Type IV construction, shall comply with this section, in addition to other applicable requirements of the code.

37.7.2 Surface-burning characteristics. Unless otherwise specified, the HPL system shall have a flame spread index of 25 or less and a smoke-developed index of 450 or less when tested in the minimum and maximum thicknesses intended for use in accordance with ASTM E84 or UL 723.

37.7.3 Vertical and lateral flame propagation. Where installed on buildings that are greater than 40 feet (12,190 mm) above grade plane, the exterior wall assembly shall be tested to, and comply with the requirements of, NFPA 285, unless the insulation contained in the IMP system is only noncombustible insulation in accordance with 7.1.4.1.

37.7.4 Thermal barriers. The IMP system shall be separated from the interior of a building by an approved thermal barrier in accordance with 48.3.3, unless exempted by 37.7.5.

37.7.5 Thermal barrier not required. The thermal barrier specified in 37.7.4 shall not be required if the IMP system meets the criteria of either 37.7.5.1, 37.7.5.2, or 37.7.5.3.

37.7.5.1 The IMP system shall comply with the requirements of UL 1040, or of UL 1715 or with the requirements of 10.2.3.2 when tested in accordance with NFPA 286, with the testing performed with the IMP in the minimum and maximum thicknesses intended for use and with the IMP system being tested including all details used in the installation.

37.7.5.2. The IMP system shall be used only in architectural trim or similar embellishments, or in balconies or similar projections.

37.7.5.3 The IMP system shall contain only insulation that complies with the requirements of noncombustible materials in 7.1.4.1.

37.7.6 Fire resistance rating. The IMP system shall not reduce the fire resistance rating of the exterior wall to which the system is attached.

37.7.7 Foam plastic insulation. If the IMP system contains foam plastic insulation, the IMP system shall comply with the requirements of section 48.4.

37.7.8 Labeling. The IMP system shall be labeled.

37.7.9 Type V construction. IMP systems shall be permitted for use in Type V construction.

Add also definition into chapter 3, as follows:

Insulated metal panel system. A factory manufactured panel consisting of metal facings and an insulation core intended for use as a part of the exterior wall assembly of a building.

Statement of Problem and Substantiation for Public Input

This proposed new section contains all the fire safety requirements for IMP systems. It is consistent with the remainder of the code and provides the link to the guidance in PI 50. Existing section 37.6 is proposed to be renumbered and not replaced.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 50-NFPA 5000-2021 [Section No. 37.1.5]	
Public Input No. 51-NFPA 5000-2021 [New Section after 37.5.4.2]	
Public Input No. 51-NFPA 5000-2021 [New Section after 37.5.4.2]	
Public Input No. 53-NFPA 5000-2021 [Section No. 37.6]	

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Submittal Date: Sun May 23 14:26:17 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: See FR-8126.

Public Input No. 53-NFPA 5000-2021 [Section No. 37.6]

37.6 8 * Storm Shelters. (Reserved)

Statement of Problem and Substantiation for Public Input

Section renumbering in accordance with PIs 50-52.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 50-NFPA 5000-2021 [Section No. 37.1.5]	
Public Input No. 51-NFPA 5000-2021 [New Section after 37.5.4.2]	
Public Input No. 52-NFPA 5000-2021 [New Section after 37.5.4.2]	

Submitter Information Verification

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Submittal Date: Sun May 23 14:50:09 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: The committee determined that as this PI was editorial in nature it will be incorporated into the First Revisions in this section as section numbers are updated. No further action was determined to be needed.

Public Input No. 122-NFPA 5000-2021 [Section No. 38.9.2.8.1]

38.9.2.8.1

Asphalt shingles shall be tested in accordance with either ASTM D3161/D3161M, *Standard Test Method for Wind-Resistance of Steep Slope Roofing Products (Fan-Induced Method)*, ~~or UL 2390, *Tests for Wind Resistant Asphalt Shingles with Sealed Tabs* , and ASTM D6381/D6381M,~~ or ASTM D7158/D7158M, *Standard Test Method for* ~~Measurement~~ *Wind Resistance of Asphalt* ~~Shingle Mechanical Uplift Resistance.~~ *Shingles (Uplift Force/Uplift Resistance Method)* ,

38.9.2.8.1.1 Shingles Tested in Accordance with ASTM D3161.

Where tested in accordance with ASTM D3161/D3161M, *Standard Test Method for Wind-Resistance of Steep Slope Roofing Products (Fan-Induced Method)*, asphalt shingles shall be tested for, and shall comply with, the wind speed as required in Section 35.9.

(A)

For roofs located where the maximum allowable stress wind speed, V_{ASD}, is 85 mph (38 m/s) up to, but not including, 110 mph (49 m/s), asphalt composition shingles shall comply with, and be labeled as, Class D or Class F in accordance with ASTM D3161/D3161M, *Standard Test Method for Wind-Resistance of Steep Slope Roofing Products (Fan-Induced Method)*.

(B)

For roofs located where V_{ASD} is 110 mph (49 m/s) or greater, asphalt composition shingles shall comply with, and be labeled as, Class F in accordance with ASTM D3161/D3161M, *Standard Test Method for Wind-Resistance of Steep Slope Roofing Products (Fan-Induced Method)*.

38.9.2.8.1.2 Shingles Tested in Accordance with ~~UL 2390 and~~ ASTM ~~D6381~~ D7158 /~~D6381M.~~ D7158M

(A)

Where tested in accordance with ASTM D7158/D7158M, *Standard Test Method for Wind Resistance of Asphalt Shingles (Uplift Force/Uplift Resistance Method)*, asphalt composition shingles shall be suitable for roofs on buildings 60 ft (18 m) or less in height in wind Exposure Type B and Exposure Type C, ~~and in Occupancy Category I or Occupancy Category II~~ where the basic wind speed in accordance with Section 35.9 is as follows:

(1) Where less than or equal to V_{ASD} 90 mph (40 m/s), asphalt shingles shall be labeled ASTM D7158/D7185M, Class D~~; ASTM D7158/D7158M, Class G; or UL 2390, Class H.~~ , Class G, or Class H

(2) Where less than or equal to 120 mph (54 m/s), asphalt shingles shall be labeled ~~UL 2390, Class G, or UL 2390, Class H~~ ASTM D7158/D7158M, ClassG or Class H .

(3) Where less than or equal to 150 mph (67 m/s), asphalt shingles shall be labeled ~~UL 2390~~ ASTM D7158/D7185M , Class H .

(B)

Buildings greater than 60 ft (18 m) in height or , located in wind exposure D, ~~or assigned to Occupancy Category III or Occupancy Category IV,~~ shall have the wind load and uplift resistance determined by special calculations using ~~the procedure of UL 2390 and~~ ASTM ~~D6381~~ D7158 / ~~D6381M~~ D7185M .

Statement of Problem and Substantiation for Public Input

UL 2390 has been withdrawn by UL as a standard and is replaced by ASTM D7158. The other changes are in relation to publication updates. ASTM D7158 has been updated such that all occupancy classes are within scope for Class D, G, and H and do not require the special calculations.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 123-NFPA 5000-2021 [Sections 38.9.2.8.2, 38.9.2.8.3]	

Submitter Information Verification

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Submittal Date: Tue Jun 01 13:08:28 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8108-NFPA 5000-2021
Statement: The committee agreed with the submitter on the reference standard changes as outlined. These changes reflect current industry practice.

Public Input No. 123-NFPA 5000-2021 [Sections 38.9.2.8.2, 38.9.2.8.3]

Sections 38.9.2.8.2, 38.9.2.8.3

38.9.2.8.2

Installation of asphalt shingles shall be in accordance with the manufacturer's printed installation instructions and shall be attached as tested.

38.9.2.8.3

Asphalt shingle wrappers shall bear a label indicating compliance with the tested wind classification and reference the test method used, which shall be either ASTM D3161/D3161M ~~or UL 2390 and~~ or ASTM ~~D6381~~ D7158 / ~~D6381M~~ D7185M .

Statement of Problem and Substantiation for Public Input

UL 2390 has been withdrawn by UL as a standard and is replaced by ASTM D7158. The other changes are in relation to publication updates. ASTM D7158 has been updated such that all occupancy classes are within scope for Class D, G, and H and do not require the special calculations.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 122-NFPA 5000-2021 [Section No. 38.9.2.8.1]	

Submitter Information Verification

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Submittal Date: Tue Jun 01 13:17:18 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8109-NFPA 5000-2021
Statement: The committee agreed with the submitter on these changes. These changes reflect current industry practice.

Public Input No. 75-NFPA 5000-2021 [Sections 44.2, 44.3]

Sections 44.2, 44.3

44.2 Structural Steel and Composite Structural Steel and Concrete Construction.

44.2.1* General.

The design, fabrication, and erection of structural steel or composite structural steel and concrete for buildings and other structures shall be in accordance with ANSI/AISC 360, *Specification for Structural Steel Buildings*.

44.2.2 Seismic Design.

44.2.2.1 Structural Steel and Composite Structural Steel and Concrete Seismic Force-Resisting Systems.

The design, detailing, fabrication, and erection of structural steel or composite structural steel and concrete seismic force-resisting systems shall be in accordance with the provisions of 44.2.2.1.

44.2.2.1.1 Seismic Design Category B or Seismic Design Category C.

44.2.2.1.1.1

~~Structural steel buildings~~ Buildings of structural steel, or composite structural steel and concrete, assigned to Seismic Design Category B or Seismic Design Category C shall be of any construction permitted in ANSI/AISC 360, *Specification for Structural Steel Buildings*.

44.2.2.1.1.2

~~Where~~ In Seismic Design Category B or Seismic Design Category C where a response modification coefficient, *R*, is chosen in accordance with Table 12.2-1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, ~~is used for the design of structural steel buildings assigned to Seismic Design Category B or Seismic Design Category C, the~~ structural steel or composite structural steel and concrete seismic force-resisting ~~system~~ systems shall be designed and detailed in accordance with the provisions of ANSI/AISC 341, *Seismic Provisions for Structural Steel Buildings*, except as permitted in 44.2.2.1.1.4.

44.2.2.1.1.3

Beam-to-column connections in structural steel special moment frames and intermediate moment frames shall be prequalified in accordance with Section K1 of ANSI/AISC 341, *Seismic Provisions for Structural Steel Buildings*, qualified by testing in accordance with Section K2 of ANSI/AISC 341, or prequalified in accordance with ANSI/AISC 358, *Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications*.

44.2.2.1.1.4

In Table 12.2-1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, the response modification coefficient, *R*, designated for "steel systems not specifically detailed for seismic resistance, excluding cantilever column systems, shall be permitted to be used only for structural steel systems designed and detailed in accordance with the provisions of ANSI/AISC 360, *Specification for Structural Steel Buildings*.

44.2.2.1.2 Seismic Design Category D, Seismic Design Category E, or Seismic Design Category F.

44.2.2.1.2.1

~~Seismic~~ Structural steel or composite structural steel and concrete seismic force-resisting systems in ~~structural steel~~ buildings assigned to Seismic Design Category D, Seismic Design Category E, or Seismic Design Category F shall be designed and detailed in accordance with ANSI/AISC 341, *Seismic Provisions for Structural Steel Buildings*, except as permitted in Table 15.4.1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*.

44.2.2.1.2.2

Beam-to-column connections in structural steel special moment frames and intermediate moment frames shall be prequalified in accordance with Section K1 of ANSI/AISC 341, *Seismic Provisions for Structural Steel Buildings*, qualified by testing in accordance with Section K2 of ANSI/AISC 341, or prequalified in accordance with ANSI/AISC 358, *Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications*.

44.2.2.2 Structural Steel Members.

The design, detailing, fabrication, and erection of structural steel members in seismic force-resisting systems other than those covered in 44.2.2.1, including struts, collectors, chords, and foundation elements, shall be in accordance with ANSI/AISC 341, *Seismic Provisions for Structural Steel Buildings,* where either of the following applies:

(1) The structure is assigned to Seismic Design Category D, Seismic Design Category E, or Seismic Design Category F, except as permitted in Table 15.4-1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*.

(2) A response modification coefficient, *R*, greater than 3 in accordance with Table 12.2-1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, is used for the design of the structure assigned to Seismic Design Category B or Seismic Design Category C.

~~**44.3** – Composite Structural Steel and Concrete Construction.~~

~~**44.3.1** – General.~~

~~Systems of structural steel members acting compositely with reinforced concrete shall be designed in accordance with ACI 318, *Building Code Requirements for Structural Concrete,* excluding Chapter 14, and ANSI/AISC 360, *Specification for Structural Steel Buildings* .~~

~~**44.3.2** – Seismic Requirements for Composite Structural Steel and Concrete Construction.~~

~~Where a response modification coefficient, *R* , in accordance with Table 12.2-1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures* , is used as part of a system of structural steel acting compositely with reinforced concrete, the structure shall be designed and detailed in accordance with the provisions of ANSI/AISC 341, *Seismic Provisions for Structural Steel Buildings* .~~

Statement of Problem and Substantiation for Public Input

The intent of this proposal is to consolidate the provisions for structural steel and composite structural steel and concrete construction. AISC 360 Chapter I contains all necessary provisions and references for the design and detailing of composite structural steel and concrete construction. The consolidation of the structural steel and composite structural steel and concrete sections provides a more concise and user friendly format for the user.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 71-NFPA 5000-2021 [New Section after 44.3]	

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Committee: BLD-SCM

Committee Statement

Resolution: FR-8110-NFPA 5000-2021
Statement: The committee agreed with this submitter that this revision consolidates the provisions for structural steel and composite structural steel and concrete construction.

Public Input No. 71-NFPA 5000-2021 [New Section after 44.3]

44.3 Structural Stainless Steel

44.3.1 General. The design, fabrication, and erection of austenitic and duplex stainless steel shall be in accordance with ANSI/AISC 370, *Specification for Structural Stainless Steel Buildings.*

Statement of Problem and Substantiation for Public Input

AISC 370 Specification for Structural Stainless Steel document is an ANSI developed standard that addresses the design, fabrication, and erection of stainless steel building that are not currently covered in NFPA 5000. The addition of this new section provides the user of NFPA 5000 with the necessary resource and provisions for stainless steel design, fabrication and erection. Incorporating the AISC 370 reference as a new section permits additional provisions and applications of stainless steel to be added in future editions. The proposed section number (44.3) follows the section numbering change in the linked code change proposal (consolidating Sections 44.2 and 44.3).

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 75-NFPA 5000-2021 [Sections 44.2, 44.3]	Following section numbering change
Public Input No. 108-NFPA 5000-2021 [Sections 44.4, 44.5, 44.6, 44.7, 44.8]	

Submitter Information Verification

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Submittal Date: Wed May 26 15:01:40 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8111-NFPA 5000-2021
Statement: The committee agreed with the submitter's request for the proposed language and the addition of the new reference publication. The committee welcomes Public Comment on the addition of this standard for review during the Second Draft phase.

Public Input No. 108-NFPA 5000-2021 [Sections 44.4, 44.5, 44.6, 44.7, 44.8]

Sections 44.4, 44.5, 44.6, 44.7, 44.8

44.4 –

Open Web Steel Joists and Joist Girders.

The design, manufacture, and use of open web steel joists and joist girders shall be in accordance with SJI-100, *Standard Specification for K-Series, LH-Series, and DLH-Series Open Web Steel Joists and for Joist Girders,* or SJI-200, *Standard Specification for Composite Steel Joists, CJ-Series* .

44.5 – Steel Cable Structures.

The design, fabrication, and erection of steel cables for buildings, including related connections and protective coatings, shall be in accordance with ASCE/SEI 19, *Structural Applications of Steel Cables for Buildings.*

44.6 – Steel Storage Racks.

44.6.1 –

The design, testing, and utilization of storage racks at or below grade shall be in accordance with RMI/ANSI MH16.1, *Specification for the Design, Testing and Utilization of Industrial Steel Storage Racks.*

44.6.2 –

The design, testing, and utilization of cantilevered storage racks shall be in accordance with RMI/ANSI MH16.3, *Specification for the Design, Testing and Utilization of Industrial Steel Cantilevered Storage Racks* .

44.6.3 –

Where required by ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures* , the seismic design of storage racks and cantilever storage racks shall also be in accordance with the requirements of Section 15.5.3 of ASCE/SEI 7.

~~44.7~~ –

Cold-Formed Steel.

44.

~~7~~

4 .1 _ Design.

44.

~~7~~

4 .1.1 _

The design of cold-formed carbon and low alloy steel structural members

~~shall be in accordance with AISI-S100, *North American Specification for the Design of Cold-Formed Steel Structural Members*.~~

~~outside the scope of Section 44.6, 44.7~~

~~.1.2~~

~~The design of cold-formed stainless steel structural members~~

, 44.8, or 44.9 shall be in accordance with

~~ASCE/SEI 8, Standard~~

AISI S100, *North American Specification for the Design of Cold-Formed*

~~Stainless~~

Steel Structural Members.

44.

~~7.2 Cold-Formed Steel Decks.~~

~~The design and construction of cold-formed steel decks shall be in accordance with 44.7.2.~~

~~44.7.2.1~~ ~~–~~

~~Composite slabs of concrete on cold-formed steel decks shall be designed and constructed in accordance with ANSI/SDI-C, *Standard for Composite Steel Floor Deck – Slabs* .~~

~~44.7.2.2~~ ~~–~~

~~Cold-formed steel roof decks shall be designed and constructed in accordance with ANSI/SDI-RD, *Standard for Steel Roof Deck* .~~

~~44.7.2.3~~ ~~–~~

~~Non-composite cold-formed steel floor decks shall be designed and constructed in accordance with ANSI/SDI-NC, *Standard for Non-Composite Steel Floor Deck.*~~

~~44.7.3~~ –

4.2 _ Seismic Requirements for Cold-Formed Steel Structures.

Where a response modification coefficient, *R* , in accordance with Table 12.2-1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures* , is used for the design of cold-formed steel structures, the structures shall be designed and detailed in accordance with the requirements of AISI

-

S100, *or* AISI S400, *North American*

~~Specification for the Design of Cold-Formed Steel Structural Members; ASCE/SEI 8,~~

Standard

~~Specification~~

for

~~the~~

Seismic Design of Cold-Formed

~~Stainless~~

Steel Structural

~~Members; and, for~~

Systems cold-formed steel special bolted moment frames .

Exception: The response modification coefficient , R, designated for "Steel systems not specifically detailed for seismic resistance, excluding cantilever column systems" in ASCE 7 Table 12.2-1, shall be permitted for systems designed and detailed in accordance with AISI

~~-S400, North American Standard for Seismic~~

S100 and need not be designed and detailed in accordance with AISI S400.

44.5 Cold-Formed Stainless Steel

The design of cold-formed stainless steel structural members shall be in accordance with ASCE/SEI 8, *Standard Specification for the Design of Cold-Formed Stainless Steel Structural*

~~Systems~~

Members .

44.

~~8~~

6 _ Cold-Formed Steel Light Frame Construction.

44.

~~8~~

6 .1 _ Structural Members.

For cold-formed steel light-frame construction, the design and installation of the following structural framing systems, including their members and connections, shall be in accordance with AISI

-

S240, *North American Standard for Cold-Formed Steel Structural Framing* , and 44.

~~8~~

6 .1.1 and 44.

~~8~~

6 .1.2 , as applicable:

(1) Floor and roof systems

(2) Structural walls

(3) Shear walls, strap-braced walls, and diaphragms to resist in-plane lateral loads

(4) Trusses

44.

8

6.1.1 Seismic Requirements for Cold-Formed Steel Structural Systems.

.The design of cold-formed steel light-frame construction to resist seismic forces shall be in accordance with the provisions of 44.8.1.1.1 or 44.8.1.1.2 , as applicable.

44.

8

6.1.1.1 Seismic Design Categories B and C.

44.

8

6.1.1.1.1

Except as permitted in 44.8.1.1.1.2 , when a response modification coefficient, *R* , in accordance with Table 12.2-1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures* , is used for the design of cold-formed steel light-frame construction assigned to seismic design category B or C, the seismic force-resisting system shall be designed and detailed in accordance with the requirements of AISI S400, *North American Standard for Seismic Design of Cold-Formed Steel Structural Systems* .

44.

8

6.1.1.1.2

Response modifications for coefficient, *R* , for “Steel systems not specifically detailed for seismic resistance excluding cantilever column systems” per Table 12.2-1 in ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures* , shall be permitted for systems designed and detailed in accordance with AISI

-

S240, *North American Standard for Cold-Formed Steel Structural Framing* , and need not be designed and detailed in accordance with AISI

-

S400, *North American Standard for Seismic Design of Cold-Formed Steel Structural Systems* .

44.

8

6.1.2 Seismic Design Categories D through F.

In cold-formed steel light-frame construction assigned to seismic design category D, E, or F, the seismic force-resisting system shall be designed and detailed in accordance with AISI

-

S400, *North American Standard for Seismic Design of Cold-Formed Steel Structural Systems* .

44.

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6.1.2 Prescriptive Framing.

Detached one- and two-family dwellings and townhouses, less than or equal to three stories in height, shall be permitted to be constructed in accordance with AISI

-

S230, *Standard for Cold-Formed Steel Framing — Prescriptive Method for One- and Two-Family Dwellings* , subject to the limitations therein.

44.

8

6.2 Nonstructural Members.

The design and installation of nonstructural members and connections utilized in cold-formed steel light frame construction applications shall be in accordance with AISI

S220, *North American Standard for Cold-Formed Steel Framing — Nonstructural Members*.

44.7.2 Cold-Formed Steel Decks.

The design and construction of cold-formed steel decks shall be in accordance with 44.7.2.

44.7.2.1

Composite slabs of concrete on cold-formed steel decks shall be designed and constructed in accordance with ANSI/SDI-C, *Standard for Composite Steel Floor Deck – Slabs*.

44.7.2.2

Cold-formed steel roof decks shall be designed and constructed in accordance with ANSI/SDI-RD, *Standard for Steel Roof Deck*.

44.7.2.3

Non-composite cold-formed steel floor decks shall be designed and constructed in accordance with ANSI/SDI-NC, *Standard for Non-Composite Steel Floor Deck.*

44.8 Open Web Steel Joists and Joist Girders.

The design, manufacture, and use of open web steel joists and joist girders shall be in accordance with SJI-100, *Standard Specification for K-Series, LH-Series, and DLH-Series Open Web Steel Joists and for Joist Girders,* or SJI-200, *Standard Specification for Composite Steel Joists, CJ-Series*.

44.9 Steel Storage Racks.

44.9.1

The design, testing, and utilization of storage racks shall be in accordance with RMI/ANSI MH16.1, *Specification for the Design, Testing and Utilization of Industrial Steel Storage Racks.*

44.9.2

The design, testing, and utilization of cantilevered storage racks shall be in accordance with RMI/ANSI MH16.3, *Specification for the Design, Testing and Utilization of Industrial Steel Cantilevered Storage Racks*.

44.9.3

Where required by ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, the seismic design of storage racks and cantilever storage racks shall also be in accordance with the requirements of Section 15.5.3 of ASCE/SEI 7.

44.10 Steel Cable Structures.

The design, fabrication, and erection of steel cables for buildings, including related connections and protective coatings, shall be in accordance with ASCE/SEI 19, *Structural Applications of Steel Cables for Buildings.*

Additional Proposed Changes

File Name	Description	Approved
NFPA_5000-21_Chapter_44_-_CFS_Reorganization_Proposal_-_Clean.docx	Due to the reorganization of the section, and excessive legislative formatting, this document is simply a "clean" version of the proposal without legislative formatting to better reflect the desired final outcome of the proposal.	

Statement of Problem and Substantiation for Public Input

This reorganization of several sections in Chapter 44 are is intended to provide clarification and improve the usability of the chapter.

The proposed section 44.4.1 clarifies that AISI S100 shall be used to design cold-formed steel that falls outside of the scope of the subsequent (proposed) sections 44.6, 44.7, 44.8, or 44.9. The specific material standards referenced in each section shall be used to design applicable members, or systems, in preference of AISI S100. The proposal also provides clarification that the exception for the seismic response coefficient, R, related to ASCE 7 Table 12.2-1

applies to cold-formed steel structural members and not only cold-formed steel light-frame construction in accordance with Section 44.6.

Cold-formed stainless steel, and reference to ASCE 8, has been broken out to it's own section (proposed section 44.5) to mimic the proposal to add Stainless Structural Steel, and reference to AISC 370, in a concurrent proposal (link).

Cold-formed Steel Deck has also been broken out to it's own section to follow the format of other material standards, Steel Deck Institute, holding separate sections and not falling under the "general" cold-formed steel section.

This proposal is not intended to make technical changes to the provision of Chapter 44, but to provide clarification on the application of the provisions and improve usability.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 71-NFPA 5000-2021 [New Section after 44.3]	Follow format of stainless steel to hold independent section and not fall under another section.

Submitter Information Verification

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Submittal Date: Mon May 31 11:19:57 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8123-NFPA 5000-2021

Statement: The committee has agreed with the reorganization of Chapter 44 and further modified this to reflect to the most recent Steel Deck Institute standard. An exception was changed to match the NFPA Manual of Style in 44.4.2. The committee welcomes Public Comment on this topic, specifically the addition of SDI-SD standard, for consideration during the Second Draft phase.

NFPA Cold-Formed Steel Section Reorganization as Follows:

44.4 Cold-Formed Steel.
44.4.1 Design.
44.4.1.1 The design of cold-formed carbon and low alloy steel structural members outside the scope of sections 44.6, 44.7, 44.8. or 44.9 shall be in accordance with AISI S100, *North American Specification for the Design of Cold-Formed Steel Structural Members.*
44.4.2 Seismic Requirements for Cold-Formed Steel Structures. Where a response modification coefficient, *R*, in accordance with ASCE 7, Table 12.2-1, is used for the design of cold-formed steel structures, the structures shall be designed and detailed in accordance with the requirements of AISI S100, or AISI S400 for cold-formed steel special-bolted moment frames.

> **Exception:** The response modification coefficient, *R*, designated for "Steel systems not specifically detailed for seismic resistance, excluding cantilever column systems" in ASCE 7, Table 12.2-1, shall be permitted for systems designed and detailed in accordance with AISI S100 and need not be designed and detailed in accordance with AISI S400.

44.5 Cold-Formed Stainless Steel
44.5.1 The design of cold-formed stainless steel structural members shall be in accordance with ASCE/SEI 8, *Standard Specification for the Design of Cold-Formed Stainless Steel Structural Members.*

44.6 Cold-Formed Steel Light Frame Construction.
44.6.1 Structural Members. For cold-formed steel light-frame construction, the design and installation of the following structural framing systems, including their members and connections, shall be in accordance with AISI S240, *North American Standard for Cold-Formed Steel Structural Framing*, and 44.6.1.1 and 44.6.1.2, as applicable:
(1) Floor and roof systems
(2) Structural walls
(3) Shear walls, strap-braced walls, and diaphragms to resist in-plane lateral loads
(4) Trusses
44.6.1.1 Seismic Requirements for Cold-Formed Steel Structural Systems. The design of cold-formed steel light-frame construction to resist seismic forces shall be in accordance with the provisions of 44.5.1.1.1 or 44.5.1.1.2, as applicable.
44.6.1.1.1 Seismic Design Categories B and C.
44.6.1.1.1.1 Except as permitted in 44.5.1.1.1.2, when a response modification coefficient, *R*, in accordance with Table 12.2-1 of ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, is used for the design of cold-formed steel light-frame construction assigned to seismic design category B or C, detailed in accordance with the requirements of AISI S400, *North American Standard for Seismic Design of Cold-Formed Steel Structural Systems*
44.6.1.1.1.2 Response modifications for coefficient, *R*, for "Steel systems not specifically detailed for seismic resistance excluding cantilever column systems" per Table 12.2-1in ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, shall be permitted for systems designed and detailed in accordance with AISI S240, *North American Standard for Cold-Formed Steel Structural Framing*, and need not be designed and detailed in accordance with AISI S400, *North American Standard for Seismic Design of Cold-Formed Steel Structural Systems*.
44.6.1.1.2 Seismic Design Categories D through F. In cold-formed steel light-frame construction assigned to seismic

design category D, E, or F, the seismic force-resisting system shall be designed and detailed in accordance with AISI S400, *North American Standard for Seismic Design of Cold-Formed Steel Structural Systems*.

44.6.1.2 Prescriptive Framing. Detached one- and two-family dwellings and townhouses, less than or equal to three stories in height, shall be permitted to be constructed in accordance with AISI S230, *Standard for Cold-Formed Steel Framing – Prescriptive Method for One- and Two-Family Dwellings*, subject to the limitations therein.

44.6.2 Nonstructural Members. The design and installation of nonstructural members and connections utilized in cold-formed steel light frame construction applications shall be in accordance with AISI S220, *North American Standard for Cold-Formed Steel Framing — Nonstructural Members*.

44.7.2 Cold-Formed Steel Decks. The design and construction of cold-formed steel decks shall be in accordance with 44.6.2.

44.7.2.1 Composite slabs of concrete on cold-formed steel decks shall be designed and constructed in accordance with ANSI/SDI-C, *Standard for Composite Steel Floor Deck – Slabs*.

44.7.2.2 Cold-formed steel roof decks shall be designed and constructed in accordance with ANSI/SDI-RD, *Standard for Steel Roof Deck*.

44.7.2.3 Non-composite cold-formed steel floor decks shall be designed and constructed in accordance with ANSI/SDINC, *Standard for Non-Composite Steel Floor Deck.*

44.8 Open Web Steel Joists and Joist Girders. The design, manufacture, and use of open web steel joists and joist girders shall be in accordance with SJI-100, *Standard Specification for KSeries, LH-Series, and DLH-Series Open Web Steel Joists and for Joist Girders,* or SJI-200, *Standard Specification for Composite Steel Joists, CJ-Series*.

44.9 Steel Storage Racks.

44.9.1 The design, testing, and utilization of storage racks shall be in accordance with RMI/ANSI MH16.1, *Specification for the Design, Testing and Utilization of Industrial Steel Storage Racks.*

44.9.2 The design, testing, and utilization of cantilever storage racks shall be in accordance with RMI/ASI MH16.3, *Specification for the Design, Testing and Utilization of Industrial Steel Cantilever Storage Racks.*

44.9.3 Where required by ASCE/SEI 7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, the seismic design of storage racks and cantilever storage racks shall also be in accordance with the requirements of Section 15.5.3 of ASCE/SEI 7.

44.10 Steel Cable Structures. The design, fabrication, and erection of steel cables for buildings, including related connections and protective coatings, shall be in accordance with ASCE/SEI 19, *Structural Applications of Steel Cables for Buildings.*

Public Input No. 42-NFPA 5000-2021 [Chapter 47 [Title Only]]

Gypsum ~~Board~~ Panel Products , Lath, and Plaster

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 43-NFPA 5000-2021 [Sections 47.1.1.1, 47.1.1.2]	
Public Input No. 44-NFPA 5000-2021 [Sections 47.1.3, 47.1.4]	
Public Input No. 46-NFPA 5000-2021 [Section No. 47.2]	

Submitter Information Verification

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Committee: BLD-SCM

Committee Statement

Resolution: FR-8113-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 43-NFPA 5000-2021 [Sections 47.1.1.1, 47.1.1.2]

Sections 47.1.1.1, 47.1.1.2

47.1.1.1

The requirements of this chapter shall apply to the use of gypsum ~~board~~ panel products , gypsum veneer plaster, gypsum plaster, and portland cement plaster.

47.1.1.2

Gypsum ~~board~~ panel products , gypsum veneer plaster, gypsum plaster, and portland cement plaster systems and materials shall be constructed in accordance with this chapter and all other applicable requirements of this *Code*.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 42-NFPA 5000-2021 [Chapter 47 [Title Only]]	
Public Input No. 44-NFPA 5000-2021 [Sections 47.1.3, 47.1.4]	
Public Input No. 46-NFPA 5000-2021 [Section No. 47.2]	

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Committee: BLD-SCM

Committee Statement

Resolution: FR-8117-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 44-NFPA 5000-2021 [Sections 47.1.3, 47.1.4]

Sections 47.1.3, 47.1.4

47.1.3 Fire Rating Required.

Where required to provide a fire resistance rating, lath, plaster, and gypsum ~~board systems~~ panel systems or assemblies shall meet the requirements of Chapter 8 of this *Code*.

47.1.4 Inspection.

Lath and gypsum ~~wallboard shall~~ panels shall be inspected in accordance with 1.7.6.6.3.4(F) of this *Code*.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 42-NFPA 5000-2021 [Chapter 47 [Title Only]]	
Public Input No. 43-NFPA 5000-2021 [Sections 47.1.1.1, 47.1.1.2]	
Public Input No. 46-NFPA 5000-2021 [Section No. 47.2]	

Submitter Information Verification

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Submittal Date: Wed May 19 10:46:29 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8118-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 45-NFPA 5000-2021 [Section No. 47.1.5.5]

47.1.5.5 Gypsum Panel Products.

The general name for a family of sheet products consisting essentially of gypsum, also referred to as gypsum panels .

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and determined that some of the definitions were inconsistent with other codes and gypsum industry publications. This Public Input is intended to correct this definitions for consistency. The additional language at the end provides helpful clarification for users of the code.

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Submittal Date: Wed May 19 10:48:24 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8119-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 46-NFPA 5000-2021 [Section No. 47.2]

47.2 Gypsum ~~Board and~~ Panel Products and Gypsum Veneer Plaster.

47.2.1 General.

47.2.1.1 Exposure to Weather and Water.

47.2.1.1.1

Gypsum ~~wallboard~~ board shall not be installed where it will be directly exposed to the weather or to water and shall not be applied until weather protection for the application is provided.

47.2.1.1.2

Gypsum sheathing shall be installed and protected from exposure in compliance with ASTM C1280, *Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing*.

47.2.1.2 Treatment of Joints in Fire-Resistance-Rated Systems.

47.2.1.2.1

The face layers of all fire-resistance-rated gypsum ~~board systems~~ panel systems , except those tested with a material equivalent to joint treatment or those tested without joint treatment, shall have joints and fastener heads treated as required by the fire- resistance listing.

47.2.1.2.2

Taping and finishing of joints and fasteners shall not be required in systems where square edge or tongue-and-groove edge gypsum sheathing is installed.

47.2.1.3 Fire- Resistance Rating Required.

47.2.1.3.1

Where gypsum ~~board systems~~ panel systems are required to be fire rated, details of construction shall be in accordance with the applicable fire- resistance listing.

47.2.1.3.2

Fire-rated gypsum ~~board systems~~ panel systems shall be constructed in accordance with GA-600, *Fire Resistance and Sound Control Design Manual*, or other recognized resource.

47.2.1.4 Shear Values.

47.2.1.4.1 Walls.

Shear values for walls sheathed with gypsum ~~board shall~~ panels shall be in accordance with 44.8.5 or Section 45.4.

47.2.1.4.2 Ceilings.

47.2.1.4.2.1

Values for shear diaphragms of gypsum board wood-framed ceiling assemblies shall not exceed those in Table 47.2.1.4.2.1.

Table 47.2.1.4.2.1 Shear Values for Shear Diaphragms of Gypsum Board Wood-Framed Ceiling Assemblies[a,b]

Gypsum Board Material	Minimum Material Thickness (in.)	Spacing of Framing Members (in.)	Maximum Fastener Spacing (in.)	Shear Value (lb/ft of wall)	Minimum Fastener Size[c, d]
Gypsum ~~wallboard~~ board , gypsum base for veneer plaster	½	16 oc	7	90	5d cooler or wallboard nails
Gypsum ~~wallboard~~ board , gypsum base for veneer plaster	½	24 oc	7	70	5d cooler or wallboard nails

For SI units, 1 in. = 25.4 mm; 1 lb/ft = 14.5939 N/m.

[a]Diaphragms are not to be used to resist loads imposed by masonry or concrete construction. Values are not cumulative with other horizontal diaphragm values. Values shown are for short-term loading due to wind or due to seismic loading. Values are to be reduced 25 percent for normal loading.

[b]All perimeter edges blocked at the top plate of wall using wood framing members not less than 2 in. × 6 in. nominal (38 mm × 145 mm) in dimension, installed flat over the top plate to provide a nailing attachment surface for the gypsum board not less than 2 in. (51 mm) in width.

[c]Alternate nails can be substituted, provided that their dimensions are equal to or greater than those of the item described.

[d]Type S or Type W drywall screws, a minimum of 1¼ in. (32 mm) in length, can be substituted for the prescribed nails.

47.2.1.4.2.2

Gypsum board horizontal diaphragms shall not be used to resist loads imposed by masonry or concrete construction.

47.2.1.4.2.3

The maximum allowable diaphragm proportions shall be 1½ to 1 spanning between shear-resisting elements.

47.2.1.4.2.4

Resistance by rotation or cantilevered conditions shall not be permitted.

47.2.1.4.2.5

The requirements of 47.2.1.4.2.5(A) and 47.2.1.4.2.5(B) shall apply to gypsum board used in a diaphragm ceiling.

(A)

The gypsum board shall be installed perpendicular to ceiling framing members.

(B)

The end joints of adjacent courses of gypsum board shall not occur on the same joist.

47.2.1.4.3 Framing Support Materials.

47.2.1.4.4 Cold-Formed Steel Light-Frame Construction Support.

47.2.1.4.4.1

Nonstructural cold-formed steel studs and track shall comply with AISI S220, *North American Standard for Cold-Formed Steel Framing — Nonstructural Members*.

47.2.1.4.4.2

Structural cold-formed steel studs and track shall comply with AISI S240, *North American Standard for Cold-Formed Steel Structural Framing*.

47.2.1.4.5 Wood Support.

47.2.1.4.5.1

Wood support materials shall be not less than 2 in. nominal (38 mm) in their least dimension.

47.2.1.4.5.2

Wood furring strips installed over solid backing shall be not less than 1 in. × 2 in. nominal (19 mm × 38 mm) in dimension.

47.2.2 Gypsum ~~Board Materials~~ Panel Products .

47.2.2.1

Gypsum ~~board materials~~ panel products shall comply with the following:

(1) ASTM C1177/C1177M, *Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing*

(2) ASTM C1178/C1178M, *Standard Specification for Glass Mat Water-Resistant Gypsum Backing Panel*

(3) ASTM C1278/C1278M, *Standard Specification for Fiber-Reinforced Gypsum Panel*

(4) ASTM C1396/C1396M, *Standard Specification for Gypsum Board*

47.2.2.2

Accessories used in the application of gypsum ~~board shall~~ panels shall comply with ASTM C1047, *Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base*.

47.2.2.3

Joint treatment materials used in the application of gypsum ~~board shall~~ panels shall comply with ASTM C475/C475M, *Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board*, or with ASTM C920, *Standard Specification for Elastomeric Joint Sealants*.

47.2.2.3.1

Joint compound and joint tape materials shall comply with ASTM C475.

47.2.2.3.2

Elastomeric joint materials used as alternates to joint compound and joint tape materials shall comply with ASTM C920.

47.2.2.4

Fasteners used in the application of gypsum ~~board~~ panels shall comply with one of the following:

(1) ASTM C514, *Standard Specification for Nails for the Application of Gypsum Board*

(2) ASTM F547, *Standard Terminology of Nails for Use with Wood and Wood-Base Materials*

(3) ASTM C954, *Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness*

(4) ASTM C1002, *Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs*

47.2.2.5

Adhesives used for fastening gypsum ~~board to~~ panels to wood framing shall comply with ASTM C557, *Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing*.

47.2.3 Gypsum Board Installation.

47.2.3.1

Application and finishing of gypsum board shall comply with ASTM C840, *Standard Specification for Application and Finishing of Gypsum Board*, or GA-216, *Specification for the Application and Finishing of Gypsum ~~Board~~ Panel Products* .

47.2.3.2

Installation of gypsum sheathing shall comply with ASTM C1280.

47.2.4 Gypsum Veneer Plaster Materials.

47.2.4.1

Gypsum base for veneer plaster shall comply with ASTM C588/C588M, *Standard Specification for Gypsum Base for Veneer Plasters*.

47.2.4.2

Gypsum veneer plaster shall comply with ASTM C587, *Standard Specification for Gypsum Veneer Plaster*.

47.2.4.3

Accessories used in the application of gypsum base for veneer plaster shall comply with ASTM C1047.

47.2.4.4

Fasteners used in the application of gypsum base for veneer plaster shall comply with the following standards:

(1) ASTM C514, *Standard Specification for Nails for the Application of Gypsum Board*

(2) ASTM F547, *Standard Terminology of Nails for Use with Wood and Wood-Based Materials*

(3) ASTM C954, *Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness*

(4) ASTM C1002, *Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs*

47.2.4.5

Adhesives used for fastening gypsum base for veneer plaster to wood framing shall comply with ASTM C557.

47.2.5 Gypsum Veneer Plaster Installation.

47.2.5.1

Application of gypsum base that is to receive gypsum veneer plaster shall comply with ASTM C844, *Standard Specification for Application of Gypsum Base to Receive Gypsum Veneer Plaster*.

47.2.5.2

Application of gypsum veneer plaster shall comply with ASTM C843, *Standard Specification for Application of Gypsum Veneer Plaster*.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 42-NFPA 5000-2021 [Chapter 47 [Title Only]]	
Public Input No. 43-NFPA 5000-2021 [Sections 47.1.1.1, 47.1.1.2]	
Public Input No. 44-NFPA 5000-2021 [Sections 47.1.3, 47.1.4]	
Public Input No. 66-NFPA 5000-2021 [Section No. 47.2.2.1]	

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Submittal Date: Wed May 19 10:51:19 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8129-NFPA 5000-2021

Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 64-NFPA 5000-2021 [Section No. 47.2.1.1.2]

47.2.1.1.2

Gypsum sheathing shall be installed and protected from exposure in compliance with ASTM C1280, *Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing* or GA-253 *Application of Gypsum Sheathing* . .

Statement of Problem and Substantiation for Public Input

This PI adds GA-253, an industry publication, as an option to ASTM C1280. This option already exists in other codes (the IRC, with a proposal to add it to the 2024 IBC as well). Some users prefer the industry publication.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 65-NFPA 5000-2021 [New Section after G.1.2]	

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Submittal Date: Tue May 25 14:02:01 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: The committee did not agree with the submitter's request to add the referenced document as it is not a consensus standard. The committee welcomes Public Comment on this topic for review during the Second Draft phase.

Public Input No. 66-NFPA 5000-2021 [Section No. 47.2.2.1]

47.2.2.1

Gypsum board materials shall comply with the following:

(1) ASTM C1177/C1177M, *Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing*

(2) ASTM C1178/C1178M, *Standard Specification for Glass Mat Water-Resistant Gypsum Backing Panel*

(3) ASTM C1278/C1278M, *Standard Specification for Fiber-Reinforced Gypsum Panel*

(4) ASTM C1396/C1396M, *Standard Specification for Gypsum Board*

(5) ASTM C1658/C1658M, *Standard Specification for Glass Mat Gypsum Panels*

Statement of Problem and Substantiation for Public Input

This PI is necessary to accompany the change to the title of this section (PI 46). ASTM C1658 covers glass mat gypsum panels (a type of gypsum panel product), which are not covered by any of the other standards on the list.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 46-NFPA 5000-2021 [Section No. 47.2]	
Public Input No. 67-NFPA 5000-2021 [Section No. G.1.2.8]	

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Submittal Date: Tue May 25 14:17:47 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8130-NFPA 5000-2021
Statement: The committee agreed with the submitter to provide reference to ASTM C1658.

Public Input No. 63-NFPA 5000-2021 [Section No. 47.4.3.1.5]

47.4.3.1.5

Gypsum ~~board~~ panels , where used as a backing for lath, shall meet the requirements of 47.4.3.1.5.1 and 47.4.3.1.5.2.

47.4.3.1.5.1

Gypsum sheathing shall be permitted to be used as a backing for metal or wire fabric lath where covered by a weather-resistive barrier.

47.4.3.1.5.2

Gypsum lath or gypsum ~~wallboard shall~~ panels shall be permitted to be used as a backing for self-furred metal or wire fabric lath on ceilings, soffits, or interior walls where covered by a weather-resistive barrier.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

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Committee: BLD-SCM

Committee Statement

Resolution: FR-8120-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 36-NFPA 5000-2021 [Section No. 48.3.3.2]

48.3.3.2*

The thermal barrier material shall comply with one of the following:

(1) The thermal barrier shall be ½ in. (13 mm) gypsum ~~board~~ panels .

(2) The thermal barrier material shall comply with the requirements of the temperature transmission fire test and of the integrity fire test in NFPA 275.

(3) The thermal barrier material shall comply with the temperature transmission test in NFPA 275 and with the conditions of acceptance of ANSI/FM 4880, *American National Standard for Evaluating the Fire Performance of Insulated Building Panel Assemblies and Interior Finish Materials*; UL 1040, *Fire Test of Insulated Wall Construction*; or UL 1715, *Fire Test of Interior Finish Material*, when tested in conjunction with the foam plastic insulation for a period of 15 minutes.

(4) Heavy timber [Type IV(2HH)] shall be permitted to be used as a thermal barrier material in a roof deck.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

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Submittal Date: Wed May 19 09:41:26 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: The committee incorporated the changes in FR-8132.

Public Input No. 59-NFPA 5000-2021 [Section No. 48.3.3.2]

48.3.3.2*

The thermal barrier material shall comply with one of the following:

(1) The thermal barrier shall be ½ in. (13 mm) gypsum board.

(2) The thermal barrier material shall comply with the requirements ~~of the~~ both of the temperature transmission fire test and of the integrity fire test in NFPA 275.

(3) ~~The thermal barrier material shall comply with the temperature transmission test in NFPA 275 and with the conditions of acceptance of ANSI/FM 4880, *American National Standard for Evaluating the Fire Performance of Insulated Building Panel Assemblies and Interior Finish Materials* ; UL 1040, *Fire Test of Insulated Wall Construction* ; or UL 1715, *Fire Test of Interior Finish Material* , when tested in conjunction with the foam plastic insulation for a period of 15 minutes.~~

(4) Heavy timber [Type IV(2HH)] shall be permitted to be used as a thermal barrier material in a roof deck.

Statement of Problem and Substantiation for Public Input

NFPA 275 in its 2017 edition contains requirements that both the temperature transmission test (a fire resistance test) and the integrity fire test (a reaction-to-fire test) must be complied with. It states as follows with regard to the integrity fire test:
5.1 Test Method. The thermal barrier and foam plastic insulation or MCM shall be tested in accordance with NFPA 286; FM Approval 4880, Class I Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings and Exterior Wall Systems; ANSI/UL 1040, Standard for Fire Test of Insulated Wall Construction; or ANSI/UL 1715, Standard for Fire Test of Interior Finish Material.

With regard to conditions of acceptance it states as follows:
5.2 Conditions of Acceptance.
5.2.1 The conditions of acceptance for fire tests conducted in accordance with FM Approval 4880, Class I Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings and Exterior Wall Systems; ANSI/UL 1040, Standard for Fire Test of Insulated Wall Construction; or ANSI/UL 1715, Standard for Fire Test of Interior Finish Material; shall be as specified in the fire test standard used.
5.2.2 For fire tests conducted using NFPA 286, the conditions of acceptance shall be as specified in 5.2.2.1 through 5.2.2.2.4.
5.2.2.1 During the 40 kW fire exposure portion of the test, flames shall not spread to the ceiling.
5.2.2.2 During the 160 kW fire exposure portion of the test, the test assembly shall comply with 5.2.2.2.1 through 5.2.2.2.4.
5.2.2.2.1 Flames shall not spread to the outer extremity of the test assembly on any wall or ceiling.
5.2.2.2.2 Flashover, as defined by NFPA 286, shall not occur.
5.2.2.2.3 The peak rate of heat release throughout the NFPA 286 test shall not exceed 800 kW.
5.2.2.2.4 The total smoke released throughout the NFPA 286 test shall not exceed 1000 m2.

Therefore stating that it needs to comply with NFPA 275 (both tests) is sufficient and repeating the requirement is meaningless.

Note that this PI simply deletes item (3) and adds the word "both" in item (2) and does not revise or change item (4), which is to become (3).

Also, note that the first revision of NFPA 275, for the new edition, revises the permitted tests and deletes the 25 ft and 50 ft high corner tests of FM 4880, as well as the parallel panel test of FM 4880 and the UL 1040, as acceptable tests. It states:

"The previous editions of NFPA 275 included UL 1040, Fire Test of Insulated Wall Construction, and the 25 ft (7.6 m) and the 50 ft (15.2 m) high corner tests of FM Approval 4880, Class I Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings and Exterior Wall Systems. NFPA technical committee members have been made aware that those tests have not been conducted for many years. However, approvals of any materials or products associated with these fire tests contained in any earlier editions of NFPA 275 are considered valid and should remain so. The 16 ft (4.9 m) parallel panel test contained in the newer edition of FM 4880 has not yet been evaluated for use as an integrity fire test for thermal barriers."

As a consequence NFPA 5000 should address only whatever final decision is made by NFPA 275 and not include

tests that are likely to be eliminated from NFPA 275.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 60-NFPA 5000-2021 [Section No. A.48.3.3.2]	
Public Input No. 60-NFPA 5000-2021 [Section No. A.48.3.3.2]	

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Committee: BLD-SCM

Committee Statement

Resolution: FR-8132-NFPA 5000-2021
Statement: The committee agrees with the submitter that former items (2) and (3) were duplicative and the revisions incorporates changes recommended by PI-36.

Public Input No. 37-NFPA 5000-2021 [Section No. 48.3.3.4]

48.3.3.4

The requirements of 48.3.3.1 through 48.3.3.3 shall not apply where otherwise permitted by the following:

(1) The thermal barrier shall not be required in masonry or concrete wall, floor, or roof construction where the foam plastic insulation is covered on each face by concrete or masonry with a minimum 1 in. (25 mm) thickness.

(2) The thermal barrier shall not be required in cooler and freezer walls, provided that all of the following conditions are met:

(3) The foam plastic used in cooler and freezer walls is a maximum thickness of 10 in. (255 mm) and, when tested, is a minimum thickness of 4 in. (100 mm) and has a flame spread index of 25 or less and a smoke developed index of 450 or less.

(4) The flash and self-ignition temperatures of the foam plastic are not less than 600°F (316°C) and 800°F (427°C), respectively, when tested in accordance with ASTM D1929, *Standard Test Method for Determining Ignition Temperature of Plastics* .

(5) The foam plastic is covered by aluminum not less than 0.032 in. (0.8 mm) thick or corrosion-resistant steel having a base metal thickness not less than 0.016 in. (0.4 mm) at any point.

(6) The cooler or freezer walls are protected by an automatic sprinkler system in accordance with NFPA 13.

(7) The cooler or freezer is within a building, and the cooler or freezer and the part of the building in which it is located are protected by an automatic sprinkler system in accordance with NFPA 13.

(8) The thermal barrier shall not be required in walk-in coolers in unsprinklered buildings, provided that all of the following conditions are met:

(9) The foam plastic insulation is used in thicknesses of 4 in. (100 mm) or less.

(10) The foam plastic insulation has a flame spread of 75 or less.

(11) The aggregate floor area of the walk-in coolers is 400 ft^2 (37 m^2) or less.

(12) The foam plastic insulation is covered either by aluminum not less than 0.032 in. (0.8 mm) thick or corrosion-resistant steel having a minimum base metal thickness of 0.016 in. (0.4 mm).

(13) The thermal barrier shall not be required on or in exterior walls of one-story buildings where all of the following criteria are met:

(14) The foam plastic insulation meets all of the following requirements:

(15) It is 4 in. (100 mm) or less in thickness.

(16) It has a flame spread index of 25 or less.

(17) It has a smoke developed index of 450 or less.

(18) It is covered either by aluminum with a thickness equal to or greater than 0.032 in. (0.8 mm) or corrosion-resistant steel having a base metal thickness greater than 0.016 in. (0.4 mm).

(19) The building is equipped throughout with an automatic sprinkler system in accordance with NFPA 13.

(20) The thermal barrier shall not be required in roof assemblies where the following criteria are met:

(21) The foam plastic insulation installed in a roof assembly in accordance with this *Code* and the manufacturer's installation instructions is separated from the interior of the building by wood structural sheathing not less than 0.47 in. (12 mm) in thickness bonded with exterior glue, with edges supported by one of the following:

(22) Blocking

(23) Tongue-and-groove joints

(24) Other approved type of edge support

(25) Other equivalent material

(26) The foam plastic insulation is a part of a Class A, Class B, or Class C roof-covering assembly, provided that the assembly with the foam plastic insulation satisfactorily passes either of the

following:

(27) FM Approval 4450, *Class I Insulated Steel Deck Roofs*

(28) UL 1256, *Fire Test of Roof Deck Constructions*

(29) The thermal barrier shall not be required in attics and crawl spaces if the foam plastic insulation is installed within an attic or crawl space where entry is made only for service of utilities, and the foam plastic insulation is protected against ignition by one of the following:

(30) Mineral fiber insulation of 1 1/2 in. (38 mm) thickness

(31) Wood structural panel, particleboard, or hardboard of 1/4 in. (6.4 mm) thickness

(32) Gypsum wallboard of

~~0.375 in.~~

(a) 3/8 in. (9.5 mm) thickness

(b) Corrosion-resistant steel having a base metal thickness of 0.016 in. (0.4 mm)

(c) Other approved material consistent with the requirements of the application and installed so that the foam plastic insulation is not exposed

(33) The thermal barrier shall not be required in doors where the following criteria are met:

(34) Where the foam plastic insulation meeting the requirements of 48.3.2 is used as a core of pivoted or side-hinged doors that comply with the following:

(35) The doors do not require a fire protection rating.

(36) The door skin is steel having a thickness of at least 0.016 in. (0.4 mm) or aluminum having a thickness of at least 0.032 in. (0.8 mm) at any point.

(37) Where foam-filled exterior entrance doors of residential occupancies comply with the following:

(38) The doors do not require a fire resistance rating.

(39) The doors are faced with wood or other approved materials.

(40) Where the foam plastic insulation is used as core material for garage doors, and the following criteria are met:

(41) No fire resistance rating is required for the assembly.

(42) The door is faced with at least 0.032 in. (0.8 mm) aluminum, 0.010 in. (0.25 mm) steel, or a 0.125 in. (3.1 mm) thickness of wood.

(43) Where garage doors have facings other than those specified in 48.3.3.4 (7)(c)(ii) and are tested in accordance with, and meet the acceptance criteria of, ANSI/DASMA 107, *Room Fire Test Standard for Garage Doors Using Foam Plastic Insulation* .

(44) Where the foam plastic insulation is used as core material for garage doors in one- and two-family dwellings, and the foam plastic insulation complies with 48.3.2 .

(45) The thermal barrier shall not be required in conjunction with siding backer board where the following criteria are met:

(46) The foam plastic insulation 1/2 in. (13 mm) or less in thickness and having a potential heat of not more than 2000 Btu/ft^2 (22.7 MJ/m^2) when tested in accordance with NFPA 259, is separated from the interior of the building by a least 2 in. (51 mm) of mineral fiber insulation or equivalent.

(47) The siding and foam plastic insulation are applied over existing siding.

(48) The thermal barrier shall not be required on interior trim where the foam plastic insulation meets the

requirements of Section 48.5.

(49) The thermal barrier shall not be required on interior plastic signs in covered mall concourse buildings where used in accordance with Section 48.8.

(50) In Type V construction, foam plastic insulation shall be permitted to be spray-applied to sill plates and headers without requiring a thermal barrier where the foam plastic insulation complies with all of the following criteria:

(51) The maximum thickness of the foam plastic insulation is 3 1/4 in. (82.6 mm).

(52) The density of the foam plastic insulation ranges between 1.5 lb/ft^3 to 2.0 lb/ft^3 (24 kg/m^3 to 32 kg/m^3).

(53) The foam plastic insulation has a flame spread index of 25 or less.

(54) The thermal barrier shall not be required where tested in accordance with 48.4.4.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

NOTE: Terra has destroyed the formatting here. The ONLY change is in (6)(c), replacing 0.375 in with 3/8 in, to be consistent with the rest of the standard, along with all other codes, standards, and industry publications.

Submitter Information Verification

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Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
State:
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Submittal Date: Wed May 19 09:43:34 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8122-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 102-NFPA 5000-2021 [Section No. 54.2]

54.2 Installation.

54.2.1

Except as modified herein, elevators, escalators, dumbwaiters, and moving walkways shall be installed in accordance with the requirements of ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators*.

54.2.2

Elevators in accordance with ASME A17.7/CSA B44.7, *Performance-Based Safety Code for Elevators and Escalators,* shall be deemed to comply with ASME A17.1/CSA B44.

54.2.3

For other than elevators used for occupant ~~-controlled~~ evacuation ~~in~~ operation in accordance with Section 11.4 14 and ASME A17.1/CSA B44 , the elevator corridor call station pictograph specified in 2.27.9 of ASME A17.1/CSA B44 shall be provided at each elevator landing.

Statement of Problem and Substantiation for Public Input

To correct the terminology used to match other sections of the code and ASME A17.1/CSA B44 and to provide the correct reference for Occupant Evacuation Elevators.

Submitter Information Verification

Submitter Full Name: Kevin Brinkman
Organization: National Elevator Industry, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 28 11:57:14 EDT 2021
Committee: BLD-BSY

Committee Statement

Resolution: FR-8030-NFPA 5000-2021
Statement: The committee agreed with the submitter that this submission. This submission aligns one bi-national elevator standard and also corrects the terminology used to match other sections of the code and ASME A17.1/CSA B44 and to provide the correct reference for Occupant Evacuation Elevators.

Public Input No. 103-NFPA 5000-2021 [Section No. 54.5]

54.5 Elevator Machine/Control Rooms and Machinery/Control Spaces.

Elevator machine/control rooms and machinery/control spaces that contain solid-state equipment for elevators that have a travel distance of more than 50 ft (15 m) above the level of exit discharge, or more than 30 ft (9.1 m) below the level of exit discharge, shall be provided with ~~ventilation or air-conditioning systems to~~ a natural or mechanical means to maintain the required temperature during fire fighter service operations for elevator operation.

54.5.1

The operating temperature shall be established by the elevator equipment manufacturer's specifications.

54.5.2

Where standby power is connected to the elevator, the means to control the temperature in the machine/control room and machinery/control space ~~ventilation or air-conditioning~~ shall be connected to standby power, if applicable .

54.5.3

Elevator machine/control rooms and machinery/control spaces shall be enclosed with fire barrier walls meeting one of the following criteria:

(1) The fire barrier walls shall have a fire resistance rating of not less than the required rating of the hoistway enclosure the machine/control rooms or machinery/control spaces serve.

(2) The fire barrier walls, for other than fire service access elevators, shall have a minimum 1-hour fire resistance rating where the machine/control rooms and machinery/control spaces do not abut, and do not have openings to, the hoistway enclosure they serve.

(3) The fire barrier walls shall have a minimum 1-hour fire resistance rating where the machine/control rooms or machinery/control spaces serve a hoistway that is not required to be fire resistance rated.

54.5.4

Openings shall be protected with assemblies having a fire protection rating meeting one of the following criteria:

(1) The opening protective assembly shall have a minimum rating not less than that required for the hoistway enclosure doors.

(2) The opening protective assembly shall have a minimum ¾-hour rating where the machine/control rooms and machinery/control spaces do not abut, and do not have openings to, the hoistway enclosure they serve.

(3) The opening protective assembly shall have a minimum ¾-hour rating where the machine/control rooms and machinery/control spaces serve a hoistway that is not required to be fire resistance rated.

Statement of Problem and Substantiation for Public Input

Update to better align with the requirements in ASME A17.1/CSA B44.

Submitter Information Verification

Submitter Full Name: Kevin Brinkman
Organization: National Elevator Industry, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 28 12:00:59 EDT 2021
Committee: BLD-BSY

Committee Statement

Resolution: The committee did not determine that language provided did not address the original language within the section. Given this, the technical committee concluded that the existing language did not need to be modified. The proponent can provide further details and language changes during the Public Comment stage.

Public Input No. 104-NFPA 5000-2021 [Section No. 54.12.7]

54.12.7 Standby Power.

The fire service access elevator shall be provided with Type 60/Class 2/Level 1 standby power in accordance with ~~34.2.5~~ . NFPA 110 .

Statement of Problem and Substantiation for Public Input

Add language to provide type of standby power required and correct the reference to NFPA 110. The reference to 34.2.5 does not address standby power for elevators.

Submitter Information Verification

Submitter Full Name: Kevin Brinkman
Organization: National Elevator Industry, Inc.
Street Address:
City:
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Zip:
Submittal Date: Fri May 28 12:06:49 EDT 2021
Committee: BLD-BSY

Committee Statement

Resolution: FR-8031-NFPA 5000-2021
Statement: The committee agreed with the submitter which adds the language to provide type of standby power required and correct the reference to NFPA 110. The reference to 34.2.5 does not address standby power for elevators.

Public Input No. 105-NFPA 5000-2021 [Section No. 54.12.9]

54.12.9 Fire Service Access Elevator Symbol.

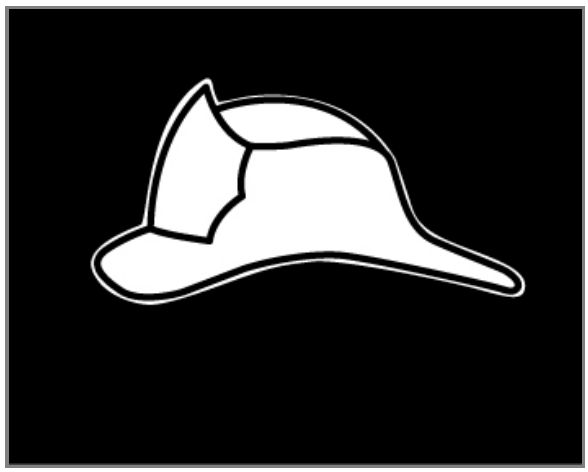
A pictorial symbol of a standardized design designating which elevators are fire service access elevators shall be installed on each side of the hoistway door frame on the portion of the frame at right angles to the fire service access elevator lobby. The fire service access elevator symbol shall be designed as shown in Figure 54.12.9 and shall comply with the following:

(1) The fire service access elevator symbol shall be a minimum of 3 in. (76 mm) in height.

(2) The helmet shall contrast with the background, with either a light helmet on a dark background or a dark helmet on a light background

(3) The vertical centerline of the fire service access elevator symbol shall be centered on the hoistway door frame. Each symbol shall be not less than 78 in. (1981 mm) and not more than 84 in. (2134 mm) above the finished floor at the threshold.

Figure 54.12.9 Fire Service Access Elevator Symbol.



Statement of Problem and Substantiation for Public Input

Add new language for consistency with other codes and renumber last requirement.

Submitter Information Verification

Submitter Full Name: Kevin Brinkman
Organization: National Elevator Industry, Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Fri May 28 12:09:23 EDT 2021
Committee: BLD-BSY

Committee Statement

Resolution: FR-8032-NFPA 5000-2021
Statement: The committee agreed with this change in principle. The committee has identified members to evaluate this issue further and provide a report at the Second Draft meeting.

Public Input No. 69-NFPA 5000-2021 [Sections 55.2.2.10.4, 55.2.2.10.5]

Sections 55.2.2.10.4, 55.2.2.10.5

55.2.2.10.4 _

~~Unless otherwise provided in~~ ~~55.2.2.10.5~~ ~~, smoke~~ Smoke alarms and smoke detectors shall not be installed ~~within an area of exclusion determined by a 10 ft (3.0 m) radial distance along a horizontal flow path from a stationary or fixed cooking appliance, unless listed for installation in close proximity to cooking appliances. Smoke alarms and smoke detectors installed~~ between 10 ft (3.0 m) and ~~20 ft~~ 20ft (6.1 ~~m~~ 1m) along a horizontal flow path from a stationary or fixed cooking ~~appliance~~ appliance unless the devices comply with the following:

1) Prior to January 1, 2023, smoke alarms and smoke detectors shall be equipped with an alarm - silencing means ~~or~~ , use photoelectric detection, or be listed for resistance to common nuisance sources from cooking in accordance with the 8th edition of UL 217 Smoke Alarms, the 7th edition of UL 268, Smoke Detectors for Fire Alarm Systems, or subsequent editions .

2) Effective January 1, 2023, smoke alarms and smoke detectors shall be listed for resistance to common nuisance sources from cooking in accordance with the 8th edition of UL 217, the 7th edition of UL 268, or subsequent editions.

[72: 29.~~8~~ 11 .3.4(4)]

55.2.2.10.5 _

Smoke alarms or smoke detectors ~~that use photoelectric detection~~ shall ~~be permitted for installation at a radial distance greater than 6 ft (1.8 m) from any~~ not be installed within an area of exclusion determined by a 10ft (3.0m) radial distance along a horizontal flow path from a stationary or fixed cooking appliance ~~when the following conditions are met:~~

- ~~The kitchen or cooking area and adjacent spaces have no clear interior partitions or headers.~~

~~The~~ . [72:29.11.3.4(5)]
When t he 10 ft (3.0 m) area of exclusion would prohibit the placement of a smoke alarm or smoke detector required by other sections of

~~*NFPA 72* .~~
this Code, and when the kitchen or cooking area and adjacent spaces have no clear interior partitions or headers, smoke alarms or smoke detectors shall be permitted for installation at a radial distance between 6ft (1.8m) and 10ft (3.0m) from any stationary or fixed cooking appliance unless the devices comply with the following:

1) Prior to January 1, 2023, the devices shall use photoelectric detection or be listed for resistance to common nuisance sources from cooking in accordance with the 8th edition of UL 217, the 7th edition of UL 268, or subsequent editions.

2) Effective January 1, 2023, the devices shall be listed for resistance to common nuisance sources from cooking nuisance alarms in accordance with the 8th edition of UL 217, the 7th edition of UL 268, or subsequent editions.

[72: 29.
~~8~~
11 .3.4(
4
5)]

Additional Proposed Changes

File Name	Description	Approved
BLD_BSF_Smoke_Alarms_Near_Cooking.docx	BLD 55.2.2.10.4	

Statement of Problem and Substantiation for Public Input

This Public Input seeks to accomplish two important objectives.
1. Reduce unwanted alarm activations from smoke alarms and smoke detectors being installed near stationary or fixed cooking appliances

2. Align the requirements in NFPA 101 with the requirements in the 2022 edition of NFPA 72 and NFPA 1 CI-9.

Submitter Information Verification

Submitter Full Name: Megan Hayes
Organization: Nema
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 14:24:50 EDT 2021
Committee: BLD-BSF

Committee Statement

Resolution: A task group has been formed to address smoke alarm requirements in section 55.2.2.10. The proposed dates are not applicable for the 2024 edition of this code therefore further scrutiny is required.

NFPA Public Input Form

NOTE: All Public Input must be received by 5:00 pm EST/EDST on the published Public Input Closing Date.

For further information on the standards-making process, please contact the Codes and Standards Administration at 617-984-7249 or visit www.nfpa.org/codes.

For technical assistance, please call NFPA at 1-800-344-3555

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Log #:

Date Rec'd:

Date **Name** **Tel. No.**

Company National Electrical Manufacturers Association (NEMA) **Email**

Street Address **City** **State** **Zip**

Please indicate organization represented (if any) NEMA

1. (a) Title of NFPA Standard Building Construction and Safety Code **NFPA No. & Year** 5000-2021

(b) Section/Paragraph 55.2.2.10.4

2. Public Input Recommends (check one): ☒ new text ☒ revised text ☐ deleted text

3. Proposed Text of Public Input (include proposed new or revised wording, or identification of wording to be deleted):
[Note: Proposed text should be in legislative format; i.e., use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~).]

55.2.2.10.4* ~~Unless otherwise provided in 9.6.2.10.7 smoke alarms and smoke detectors shall not be installed within an area of exclusion determined by a 10 ft (3.0 m) radial distance along a horizontal flow path from a stationary or fixed cooking appliance, unless listed for installation in close proximity to cooking appliances. Smoke alarms and smoke detectors installed between 10 ft (3.0 m) and 20 ft (6.1 m) along a horizontal flow path from a stationary or fixed cooking appliance shall be equipped with an alarm silencing means or use photoelectric detection. [**72:**29.11.3.4(4)]~~

Smoke alarms and smoke detectors shall not be installed between 10 ft (3.0 m) and 20 ft (6.1 m) along a horizontal flow path from a stationary or fixed cooking appliance unless the devices comply with the following:

1) Prior to January 1, 2023, smoke alarms and smoke detectors shall be equipped with an alarm silencing means, use photoelectric detection, or be listed for resistance to common nuisance sources from cooking in accordance with the 8th edition of UL 217, Smoke Alarms, the 7th edition of UL 268, Smoke Detectors for Fire Alarm Systems, or subsequent editions.
2) Effective January 1, 2023, smoke alarms and smoke detectors shall be listed for resistance to common nuisance sources from cooking in accordance with the 8th edition of UL 217, the 7th edition of UL 268, or subsequent editions.

[**72:**29.11.3.4(4)]

55.2.210.5 Smoke alarms and smoke detectors shall not be installed within an area of exclusion determined by a 10 ft (3.0 m) radial distance along a horizontal flow path from a stationary or fixed cooking appliance [**72:**29.11.3.4(5)]

~~**55.2.2.10.5**~~ **55.2.2.10.5** ~~Smoke alarms or smoke detectors that use photoelectric detection shall be permitted for installation at a radial distance greater than 6 ft (1.8 m) from any stationary or fixed cooking appliance when the following conditions are met:~~

~~1) The kitchen or cooking area and adjacent spaces have no clear interior partitions or headers.~~

~~1. The 10 ft (3.0 m) area of exclusion would prohibit the placement of a smoke alarm or smoke detector required by other sections of NFPA 72. [**72:**29.11.3.4(5)]~~

When the 10 ft (3.0 m) area of exclusion would prohibit the placement of a smoke alarm or smoke detector required by other sections of this Code, and when the kitchen or cooking area and adjacent spaces have no clear interior partitions or headers, smoke alarms or smoke detectors shall be permitted for installation at a radial distance between 6 ft (1.8 m) and 10 ft (3.0 m) from any stationary or fixed cooking appliance unless the devices comply with the following:

1) Prior to January 1, 2023, the devices shall use photoelectric detection or be listed for resistance to common nuisance sources from cooking in accordance with the 8th edition of UL 217, the 7th edition of UL 268, or subsequent editions.
2) Effective January 1, 2023, the devices shall be listed for resistance to common nuisance sources from cooking nuisance alarms in accordance with the 8th edition of UL 217, the 7th edition of UL 268, or subsequent editions.

[**72:**29.11.3.4(5)]

4. Statement of Problem and Substantiation for Public Input: (Note: State the problem that would be resolved by your recommendation; give the specific reason for your Public Input, including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication.)

This Public Input seeks to accomplish two important objectives.

1. Reduce unwanted alarm activations from smoke alarms and smoke detectors being installed near stationary or fixed cooking appliances
2. Align the requirements in NFPA 101 with the requirements in the 2022 edition of NFPA 72 and NFPA 1 CI-9.

5. Copyright Assignment

(a) ☒ I am the author of the text or other material (such as illustrations, graphs) proposed in the Public Input.

(b) ☐ Some or all of the text or other material proposed in this Public Input was not authored by me. Its source is as follows: (please identify which material and provide complete information on its source)

I hereby grant and assign to the NFPA all and full rights in copyright in this Public Input (including both the Proposed Text and the Statement of Problem and Substantiation). I understand that I acquire no rights in any publication of NFPA in which this Public Input in this or another similar or analogous form is used. Except to the extent that I do not have authority to make an assignment in materials that I have identified in (b) above, I hereby warrant that I am the author of this Public Input and that I have full power and authority to enter into this assignment.

Signature (Required) _____

PLEASE USE SEPARATE FORM FOR EACH PUBLIC INPUT

To: Secretary, Standards Council National Fire Protection Association
1 Batterymarch Park · Quincy, MA 02169-7471 OR
Fax to: (617) 770-3500 OR Email to: proposals_comments@nfpa.org

6/2/2021

Public Input No. 114-NFPA 5000-2021 [Section No. 55.3]

55.3 Automatic ~~Sprinklers~~ Sprinkler Systems .

55.3.1 General.

55.3.1.1*

Each automatic sprinkler system required by another section of this *Code* shall be in accordance with one of the following:

(1) NFPA 13

(2) NFPA 13R

(3) NFPA 13D

55.3.1.2

Sprinkler piping serving not more than six sprinklers for any hazardous area shall be permitted to be connected directly to a domestic water supply system having a capacity sufficient to provide 0.15 gpm/ft^2 (6.1 mm/min) throughout the entire enclosed area.

55.3.1.3

Sprinkler piping serving isolated hazardous areas as described in 55.3.1.2 shall be provided with an indicating shutoff valve supervised in accordance with 55.3.2 or 55.3.3 and installed in an accessible, visible location between the sprinklers and the connection to the domestic water supply.

55.3.1.4*

In areas protected by automatic sprinklers, automatic heat-detection devices required by other sections of this *Code* shall not be required.

55.3.1.5

Automatic sprinkler systems installed to make use of an alternative permitted by this *Code* shall be considered required systems and shall meet the provisions of this *Code* that apply to required systems.

55.3.1.6

In buildings five or more stories in height, a sprinkler control valve and a waterflow device shall be provided for each floor.

55.3.1.7

Basements exceeding 2500 ft^2 (232 m^2) in new buildings shall be protected throughout by an approved automatic sprinkler system. [**1:**13.3.2.2]

55.3.2 Electrical Supervision.

55.3.2.1 Supervisory Signals.

55.3.2.1.1

Where electrically supervised automatic sprinkler systems are required by another section of this *Code*, supervisory attachments shall be installed and monitored for integrity in accordance with *NFPA 72* , and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system.

55.3.2.1.2

Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.

55.3.2.2 Alarm Signal Transmission.

55.3.2.2.1

Where electrical supervision of automatic sprinkler systems is required by another section of this *Code*, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility; a remote station; a central station; or the fire department.

55.3.2.2.2

The connection described in 55.3.2.2.1 shall be in accordance with 55.2.1.2.

55.3.3 Other Supervision.

Where electrical supervision is not required by another section of this *Code*, supervision shall be permitted in accordance with NFPA 13.

Statement of Problem and Substantiation for Public Input

Automatic sprinklers are a part of an automatic sprinkler system. The title change accurately reflects the entire system installed. Correlates to NFPA 101 PI 335

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 116-NFPA 5000-2021 [New Section after 3.1]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
Organization: National Fire Sprinkler Associ
Affiliation: NFSA
Street Address:
City:
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Zip:
Submittal Date: Tue Jun 01 11:15:45 EDT 2021
Committee: BLD-BSF

Committee Statement

Resolution: FR-8069-NFPA 5000-2021
Statement: The subsection title is updated to better describe the contents of the section

Public Input No. 48-NFPA 5000-2021 [Section No. 55.3.2.1.1]

55.3.2.1.1

Where electrically supervised automatic sprinkler systems are required by another section of this *Code*, alarm and supervisory ~~attachments shall~~ initiating devices shall be installed and monitored for integrity in accordance with *NFPA 72* , and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system.

Statement of Problem and Substantiation for Public Input

Correlates with NFPA 101 PI 182. Supervisory attachments is an undefined and ambiguous term in NFPA 5000, NFPA 101, NFPA 13, and NFPA 72. The new text, initiating devices, is a defined term in NFPA 72. See PI 49 for extracting the definition from NFPA 72, Section 3.3.141, into NFPA 5000.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 49-NFPA 5000-2021 [New Section after 3.3.23]	
Public Input No. 49-NFPA 5000-2021 [New Section after 3.3.23]	

Submitter Information Verification

Submitter Full Name: Jeffrey Hugo
Organization: National Fire Sprinkler Associ
Affiliation: National Fire Sprinkler Association
Street Address:
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State:
Zip:
Submittal Date: Fri May 21 10:33:48 EDT 2021
Committee: BLD-BSF

Committee Statement

Resolution: FR-8068-NFPA 5000-2021
Statement: "Supervisory attachments" is a vague and undefined term therefore it has been replaced with "supervisory initiating devices", as this is the industry accepted term.

Public Input No. 150-NFPA 5000-2021 [Section No. 55.5.1]

55.5.1 Alternative Systems.

In any occupancy where the character of the fuel for fire is such that extinguishment or control of the fire is accomplished by a type of automatic extinguishing system in lieu of an automatic sprinkler system, such extinguishing system shall be installed in accordance with the applicable standard referenced in Table 55.5.1.

Table 55.5.1 Fire Suppression System Installation Standards

Fire Suppression System	Installation Standard
Low-, medium-, and high-expansion foam systems	NFPA 11, *Standard for Low-, Medium-, and High-Expansion Foam Systems*
Carbon dioxide systems	NFPA 12, *Standard on Carbon Dioxide Extinguishing Systems*
Halon 1301 systems	NFPA 12A, *Standard on Halon 1301 Fire Extinguishing Systems*
Water spray fixed systems	NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection*
Deluge foam-water sprinkler systems	NFPA 16, *Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems*
Dry chemical systems	NFPA 17, *Standard for Dry Chemical Extinguishing Systems*
Wet chemical systems	NFPA 17A, *Standard for Wet Chemical Extinguishing Systems*
Water mist systems	NFPA 750, *Standard on Water Mist Fire Protection Systems*
Hybrid (water and inert-gas) fire extinguishing systems	NFPA 770, *Standard on Hybrid (Water and Inert-Gas) Fire Extinguishing Systems*
Clean agent extinguishing systems	NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems*

Statement of Problem and Substantiation for Public Input

NFPA 770 is a new standard on Hybrid fire extinguishing systems and should be added as an option for a fire protection system.

Submitter Information Verification

Submitter Full Name: Kevin Kelly
Organization: Victaulic
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City:
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Zip:
Submittal Date: Tue Jun 01 16:22:04 EDT 2021
Committee: BLD-BSF

Committee Statement

Resolution: FR-8070-NFPA 5000-2021
Statement: Table updated to include NFPA 770 to recognize new technology and removed NFPA 16 as this document is now incorporated into NFPA 11.

Public Input No. 72-NFPA 5000-2021 [New Section after 55.11]

55.11.1*

Carbon monoxide detectors that are installed in air duct systems shall not be used as a substitute for open area protection. [72.17.2.3]

A.55.11.1

At present there is no product performance listing for duct mounted carbon monoxide detectors because there is no peer reviewed research to determine what the alarm thresholds for duct mounted carbon monoxide detectors should be. There are considerable differences between the operation of a spot-type carbon monoxide detector and a duct mounted carbon monoxide detector. The environment in ducts can be very harsh and could impact the carbon monoxide detector's sensing element. Furthermore, in most buildings, there are periods when the HVAC system is not moving significant quantities of air from the compartments it serves. As a result, the carbon monoxide detection system cannot be designed to rely on the HVAC system operation for the transport of carbon monoxide to the carbon monoxide detectors.

Statement of Problem and Substantiation for Public Input

This Public Input seeks to prevent a potential life safety issue by prohibiting duct mounted carbon monoxide (CO) detectors from being installed in lieu of “open area” CO detectors or alarms. This change is needed for the following reasons:

1. Duct mounted CO detectors are commercially available, however, there are no alarm thresholds for duct mounted CO detectors in UL 2075 or UL 2034
2. Duct mounted CO detectors have been proposed for use in applications where CO detection is needed, which has created confusion for designers and code officials.
3. When the HVAC system is not moving significant quantities of air duct mounted CO detectors cannot accurately detect potentially hazardous levels of CO in the rooms served by the HVAC system.
4. This PI should remove confusion about duct mounted CO detectors being used as the required means of providing code mandated protection.
5. Align the duct CO detection requirements in NFPA 101 with the requirement in the 2022 edition of NFPA 72 and FR-18 for the 2024 edition of NFPA 1.

Submitter Information Verification

Submitter Full Name: Megan Hayes
Organization: Nema
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 15:02:36 EDT 2021
Committee: BLD-BSF

Committee Statement

Resolution: FR-8071-NFPA 5000-2021
Statement: Section extracted from NFPA 72 to ensure that duct systems cannot be a substitute for where the code requires spot type CO detector. There is no listing for the alarm thresholds for duct mounted CO detectors. The detectors are listed only for shock and fire hazard and not performance.

Public Input No. 38-NFPA 5000-2021 [Section No. A.3.3.414]

A.3.3.414 Membrane.

For the purpose of fire protection features, a membrane can consist of materials such as gypsum ~~board~~ panels , plywood, glass, or fabric. For the purpose of membrane structures, a membrane consists of thin, flexible, water-impervious material capable of being supported by an air pressure of 1½ in. (38 mm) water column.

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 19 09:46:44 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8128-NFPA 5000-2021
Statement: The committee agreed with the submitter to coordinate terminology with other industry standards and publications.

Public Input No. 5-NFPA 5000-2021 [Section No. A.3.3.445.2]

A.3.3.445.2 Assembly Occupancy.

Assembly occupancies might include the following:

(1) Armories
(2) Assembly halls
(3) Auditoriums
(4) Bowling lanes
(5) Club rooms
(6) College and university classrooms, 50 persons and over
(7) Conference rooms
(8) Courtrooms
(9) Dance halls
(10) Drinking establishments
(11) Exhibition halls
(12) Gymnasiums
(13) Libraries
(14) Mortuary chapels
(15) Motion picture theaters
(16) Museums
(17) Passenger stations and terminals of air, surface, underground, and marine public transportation facilities
(18) Places of religious worship
(19) Pool rooms
(20) Recreation piers
(21) Restaurants
(22) Skating rinks
(23) Special amusement buildings, regardless of occupant load
(24) Theaters

Assembly occupancies are characterized by the presence or potential presence of crowds with attendant panic hazard in case of fire or other emergency. They are generally open or occasionally open to the public, and the occupants, who are present voluntarily, are not ordinarily subject to discipline or control. Such buildings are ~~ordinarily occupied by able-bodied persons and are~~ not used for sleeping purposes. Special conference rooms, snack areas, and other areas incidental to, and under the control of, the management of other occupancies, such as offices, fall under the 50-person limitation.

Restaurants and drinking establishments with an occupant load of fewer than 50 persons should be classified as mercantile occupancies.

For special amusement buildings, see 16.4.9.

Statement of Problem and Substantiation for Public Input

The NFPA Disability Access Review and Advisory Committee (DARAC) requests an update to the terminology used to describe individuals with disabilities. In general, we suggest using “people first” language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, we recommend substituting the appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being “for” such people. For example, we would say “accessible parking” instead of “handicap parking”. The substitute terms we recommend are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.

We used following resources to develop our input:
• "Guidelines for Writing About People with Disabilities" ADA National Network at https://adata.org/factsheet/ADANN-writing
• "Disability Style Guide" National Center on Disability and Journalism at https://ncdj.org/style-guide/
• "Resources for Reporters Writing About Blindness and Vision Loss" American Fooundation for the Blind at https://www.afb.org/news-publications/press-room/reporter-resources-writing-about-blindness-vision-loss
• "Five Tips for Writing About People with Disabilities" Adaptive Sports Center at https://www.adaptivesports.org/blog/announcements/five-tips-writing-about-people-disabilities
• "Fact Sheet: Drug Addiction and Federal Disability Rights Laws" U.S. Department of Health and Hum Services: Office for Civil Rights at https://www.hhs.gov/sites/default/files/drug-addiction-aand-federal-disability-rights-laws-fact-sheet.pdf
• "People First Language" District of Columbia Office of Disability Rights at https://odr.dc.gov/page/people-first-language

Submitter Information Verification

Submitter Full Name: Marsha Mazz
Organization: United Spinal Association
Affiliation: Representing the DARAC Advisory Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 06 13:51:24 EDT 2021
Committee: BLD-AXM

Committee Statement

Resolution: FR-8139-NFPA 5000-2021

Statement: The NFPA Disability Access Review and Advisory Committee (DARAC) requests an update to the terminology used to describe individuals with disabilities. In general, we suggest using "people first" language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, we recommend substituting the appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being "for" such people. For example, we would say "accessible parking" instead of "handicap parking". The substitute terms we recommend are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.

We used following resources to develop our input:

• "Guidelines for Writing About People with Disabilities" ADA National Network at https://adata.org/factsheet/ADANN-writing

• "Disability Style Guide" National Center on Disability and Journalism at https://ncdj.org/style-guide/

• "Resources for Reporters Writing About Blindness and Vision Loss" American Fooundation for the Blind at https://www.afb.org/news-publications/press-room/reporter-resources-writing-about-blindness-vision-loss

• "Five Tips for Writing About People with Disabilities" Adaptive Sports Center at https://www.adaptivesports.org/blog/announcements/five-tips-writing-about-people-disabilities

• "Fact Sheet: Drug Addiction and Federal Disability Rights Laws" U.S. Department of Health and Hum Services: Office for Civil Rights at https://www.hhs.gov/sites/default/files/drug-addiction-aand-federal-disability-rights-laws-fact-sheet.pdf

• "People First Language" District of Columbia Office of Disability Rights at https://odr.dc.gov/page/people-first-language

NOTE TO CORRELATING COMMITTEE: PLEASE MAKE CORRESPONDING REVISION TO A.6.1.2.1.

Public Input No. 6-NFPA 5000-2021 [Section No. A.3.3.445.12]

A.3.3.445.12 Residential Board and Care Occupancy.

The following are examples of facilities that are classified as residential board and care occupancies:

(1) Group housing arrangement ~~for physically or mentally handicapped persons~~ for persons with physical or intellectual disabilities who normally attend school in the community, attend worship in the community, or otherwise use community facilities

(2) Group housing arrangement ~~for physically or mentally handicapped persons~~ for persons with physical or intellectual disabilities who are undergoing training in preparation for independent living, for paid employment, or for other mainstream community activities

(3) Group housing arrangement for the elderly that provides personal care services but that does not provide nursing care

(4) Facility for social rehabilitation ~~, alcoholism, drug abuse, or mental health problems~~ of individuals with alcohol or substance use disorders or mental health conditions that contains a group housing arrangement and that provides personal care services but does not provide acute care

(5) Assisted living facility

(6) Other group housing arrangements that provide personal care services but not nursing care

Statement of Problem and Substantiation for Public Input

The NFPA Disability Access Review and Advisory Committee (DARAC) requests an update to the terminology used to describe individuals with disabilities. In general, we suggest using “people first” language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, we recommend substituting the appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being “for” such people. For example, we would say “accessible parking” instead of “handicap parking”. The substitute terms we recommend are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.
We used following resources to develop our input:

- “Guidelines for Writing About People with Disabilities” ADA National Network at https://adata.org/factsheet/ADANN-writing
- “Disability Style Guide” National Center on Disability and Journalism at https://ncdj.org/style-guide/
- “Resources for Reporters Writing About Blindness and Vision Loss” American Fooundation for the Blind at https://www.afb.org/news-publications/press-room/reporter-resources-writing-about-blindness-vision-loss
- “Five Tips for Writing About People with Disabilities” Adaptive Sports Center at https://www.adaptivesports.org/blog/announcements/five-tips-writing-about-people-disabilities
- “Fact Sheet: Drug Addiction and Federal Disability Rights Laws” U.S. Department of Health and Hum Services: Office for Civil Rights at https://www.hhs.gov/sites/default/files/drug-addiction-aand-federal-disability-rights-laws-fact-sheet.pdf
- “People First Language” District of Columbia Office of Disability Rights at https://odr.dc.gov/page/people-first-language

Submitter Information Verification

Submitter Full Name: Marsha Mazz
Organization: United Spinal Association
Affiliation: Representing the DARAC Advisory Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 06 13:54:29 EDT 2021
Committee: BLD-BCF

Committee Statement

Resolution: FR-8155-NFPA 5000-2021

Statement: The TC agrees with the substantiation provided by DARAC.

Public Input No. 113-NFPA 5000-2021 [New Section after A.4.5.6]

TITLE OF NEW CONTENT A.4.5.8.4

While remote inspection methodologies have existed for several years, recent world events and technological improvements have elevated interest in both its current application and future potential. NFPA 915, *Standard for Remote Inspections* , provides both mandatory requirements and enhanced guidance on this topic. Jurisdictions, building owners and other interested parties should carefully consider potential uses of remote inspection to ensure that those performed are comparable to, or exceed that, of a traditional in-person inspection.

Type your content here ...

Statement of Problem and Substantiation for Public Input

The interest in remote inspection applications and methodologies has accelerated in recent years. Remote inspection, when conducted properly, should achieve a comparable, or enhanced result, to an in-person inspection. Additionally, tangible time and financial savings may be achieved. This Public Input seeks to provide a direct reference to NFPA 915 when the use of remote inspections is permitted by the authority having jurisdiction. NFPA 915 provides standardized requirements for jurisdictions to implement as they develop remote inspection programs.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 112-NFPA 5000-2021 [New Section after 4.5.8.3]	Annex material

Submitter Information Verification

Submitter Full Name: Jim Muir
Organization: Clark County Washington Building Safety
Affiliation: Chair, NFPA 915 Committee
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 31 19:52:25 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: The public input has merit, however, NFPA 915 has not yet been issued since it is a proposed standard and is in the same revision cycle as NFPA 5000. The submitter is encouraged to submit a public comment to allow the committee to reassess the status of the proposed standard at the second draft stage.

Public Input No. 7-NFPA 5000-2021 [Section No. A.6.1.2.1]

A.6.1.2.1

Assembly occupancies might include the following:

(1) Armories
(2) Assembly halls
(3) Auditoriums
(4) Bowling lanes
(5) Club rooms
(6) College and university classrooms, 50 persons and over
(7) Conference rooms
(8) Courtrooms
(9) Dance halls
(10) Drinking establishments
(11) Exhibition halls
(12) Gymnasiums
(13) Libraries
(14) Mortuary chapels
(15) Motion picture theaters
(16) Museums
(17) Passenger stations and terminals of air, surface, underground, and marine public transportation facilities
(18) Places of religious worship
(19) Pool rooms
(20) Recreation piers
(21) Restaurants
(22) Skating rinks
(23) Special amusement buildings, regardless of occupant load
(24) Theaters

Assembly occupancies are characterized by the presence, or potential presence, of crowds with attendant panic hazard in case of fire or other emergency. They are generally or occasionally open to the public, and the occupants, who are present voluntarily, are not ordinarily subject to discipline or control. Such buildings are ~~ordinarily occupied by able-bodied persons and are~~ not used for sleeping purposes. Special conference rooms, snack areas, and other areas incidental to, and under the control of, the management of other occupancies, such as offices, fall under the 50-person limitation.

A small assembly use is occupancy of any room or space for assembly purposes by fewer than 50 persons in another occupancy that is incidental to such other occupancy and should be classified as part of the other occupancy and subject to the provisions applicable thereto.

Restaurants and drinking establishments with an occupant load of fewer than 50 persons should be classified as mercantile occupancies.

For special amusement buildings, see 16.4.9.

Statement of Problem and Substantiation for Public Input

The NFPA Disability Access Review and Advisory Committee (DARAC) requests an update to the terminology used to describe individuals with disabilities. In general, we suggest using “people first” language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, we recommend substituting the

appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being “for” such people. For example, we would say “accessible parking” instead of “handicap parking”. The substitute terms we recommend are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.
We used following resources to develop our input:
• “Guidelines for Writing About People with Disabilities” ADA National Network at https://adata.org/factsheet/ADANN-writing
• “Disability Style Guide” National Center on Disability and Journalism at https://ncdj.org/style-guide/
• “Resources for Reporters Writing About Blindness and Vision Loss” American Fooundation for the Blind at https://www.afb.org/news-publications/press-room/reporter-resources-writing-about-blindness-vision-loss
• “Five Tips for Writing About People with Disabilities” Adaptive Sports Center at https://www.adaptivesports.org/blog/announcements/five-tips-writing-about-people-disabilities
• “Fact Sheet: Drug Addiction and Federal Disability Rights Laws” U.S. Department of Health and Hum Services: Office for Civil Rights at https://www.hhs.gov/sites/default/files/drug-addiction-aand-federal-disability-rights-laws-fact-sheet.pdf
• “People First Language” District of Columbia Office of Disability Rights at https://odr.dc.gov/page/people-first-language

Submitter Information Verification

Submitter Full Name: Marsha Mazz
Organization: United Spinal Association
Affiliation: Representing the DARAC Advisory Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 06 13:59:28 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: Occupancy classification definitions are under the purview of the associated technical committees. The proposed revision will be reviewed by the Technical Committee on Assembly Occupancies and any needed changes to this provision will be handled by the correlating committee.

Public Input No. 8-NFPA 5000-2021 [Section No. A.6.1.9.1]

A.6.1.9.1

The following are examples of facilities that are classified as residential board and care occupancies:

(1) Group housing arrangement ~~for physically or mentally handicapped persons~~ for persons with physical or intellectual disabilities who normally attend school in the community, attend worship in the community, or otherwise use community facilities

(2) Group housing arrangement ~~for physically or mentally handicapped persons~~ for persons with physical or intellectual disabilities who are undergoing training in preparation for independent living, for paid employment, or for other normal community activities

(3) Group housing arrangement for the elderly that provides personal care services but that does not provide nursing care

(4) Facility for social rehabilitation ~~, alcoholism, drug abuse, or mental health problems~~ of individuals with alcohol or substance use disorders or mental health conditions that contains a group housing arrangement and that provides personal care services but does not provide acute care

(5) Assisted living facility

(6) Other group housing arrangements that provide personal care services but not nursing care

Statement of Problem and Substantiation for Public Input

The NFPA Disability Access Review and Advisory Committee (DARAC) requests an update to the terminology used to describe individuals with disabilities. In general, we suggest using “people first” language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, we recommend substituting the appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being “for” such people. For example, we would say “accessible parking” instead of “handicap parking”. The substitute terms we recommend are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.
We used following resources to develop our input:

- “Guidelines for Writing About People with Disabilities” ADA National Network at https://adata.org/factsheet/ADANN-writing
- “Disability Style Guide” National Center on Disability and Journalism at https://ncdj.org/style-guide/
- “Resources for Reporters Writing About Blindness and Vision Loss” American Fooundation for the Blind at https://www.afb.org/news-publications/press-room/reporter-resources-writing-about-blindness-vision-loss
- “Five Tips for Writing About People with Disabilities” Adaptive Sports Center at https://www.adaptivesports.org/blog/announcements/five-tips-writing-about-people-disabilities
- “Fact Sheet: Drug Addiction and Federal Disability Rights Laws” U.S. Department of Health and Hum Services: Office for Civil Rights at https://www.hhs.gov/sites/default/files/drug-addiction-aand-federal-disability-rights-laws-fact-sheet.pdf
- “People First Language” District of Columbia Office of Disability Rights at https://odr.dc.gov/page/people-first-language

Submitter Information Verification

Submitter Full Name: Marsha Mazz
Organization: United Spinal Association
Affiliation: Representing the DARAC Advisory Committee
Street Address:
City:
State:
Zip:
Submittal Date: Thu May 06 14:01:44 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: Occupancy classification definitions are under the purview of the associated technical committees. The proposed revision will be reviewed by the Technical Committee on Board and Care Facilities and any needed changes to this provision will be handled by the correlating committee.

Public Input No. 39-NFPA 5000-2021 [Section No. A.6.1.13.1]

A.6.1.13.1

Storage uses that can be considered as low hazard storage occupancies include the following:

(1) Asbestos
(2) Beer or wine up to 12 percent alcohol in metal, glass, or ceramic containers
(3) Cement in bags
(4) Chalk and crayons
(5) Dairy products in nonwax-coated paper containers
(6) Dry cell batteries
(7) Electrical coils
(8) Electrical motors
(9) Empty cans
(10) Food products
(11) Foods in noncombustible containers
(12) Fresh fruits and vegetables in nonplastic trays or containers
(13) Frozen foods
(14) Glass
(15) Glass bottles, empty or filled with noncombustible liquids
(16) Gypsum ~~board~~ panels
(17) Inert pigments
(18) Ivory
(19) Meats
(20) Metal cabinets
(21) Metal desks with plastic tops and trim
(22) Metal parts
(23) Metals
(24) Mirrors
(25) Oil-filled and other types of distribution transformers
(26) Parking garages, open or enclosed
(27) Porcelain and pottery
(28) Sheds
(29) Stoves
(30) Talc and soapstones
(31) Tanks
(32) Towers
(33) Washers and dryers

Storage uses that can be considered as storage occupancies, other than those noted for low hazard storage occupancies, include the following:

(1) Aerosols, Level 2 and Level 3
(2) Aircraft hangars
(3) Bags, cloth, burlap, and paper
(4) Bamboo and rattan
(5) Baskets
(6) Belting, canvas and leather
(7) Books and paper in rolls or packs
(8) Boots and shoes
(9) Buttons, including cloth covered, pearl, or bone

(10) Cardboard and cardboard boxes
(11) Clothing, woolen wearing apparel
(12) Cordage
(13) Furniture
(14) Furs
(15) Glues, mucilage, pastes, and size
(16) Grains
(17) Horns and combs, other than celluloid
(18) Leather
(19) Linoleum
(20) Lumber
(21) Petroleum warehouses for storage of lubricating oils with a flash point of 200°F (93°C) or higher
(22) Photo engravings
(23) Resilient flooring
(24) Silks
(25) Soaps
(26) Sugar
(27) Tires, bulk storage
(28) Tobacco, cigars, cigarettes, and snuff
(29) Upholstery and mattresses
(30) Wax candles

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 19 09:48:55 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: Occupancy classification definitions are under the purview of the associated technical committees. The proposed revision will be reviewed by the Technical Committee on Industrial and Storage Occupancies and any needed changes to this provision will be handled by the correlating committee.

Public Input No. 110-NFPA 5000-2021 [New Section after A.7.2.1.1]

A.7.2.3.2.12
See also 37.1.

Statement of Problem and Substantiation for Public Input

Section 7.2.3.2.12 indicates that nonbearing exterior walls in Types I and II construction must be constructed of noncombustible materials, limited combustible materials, or materials permitted in 7.2.3.2.12.1 and 7.2.3.2.12.2. However, Section 37.1 also includes provisions for permitted materials in Exterior Wall Construction, including Types I and II construction.

The new annex note is being provided for clarification that the provisions of Section 37.1 may be applicable in addition to the provisions of Section 7.2.3.2.12.

This PI does not make any technical changes but provides clarification to avoid confusion.

This public input is being made on behalf of a task group of NFPA 5000 set up by Standards Council, namely the NFPA 101/5000, BLC/SCM/FUN/FIZ Task Group. It is chaired by Moriel Kaplan and composed of Barry Badders, Ben Caldwell, Mark Chrisman, Paul Coats, David Collins, Richard Davis, Marcelo Hirschler, Bonnie Manley, Shamim Rashid-Sumar, Sarah Rice, and Jonathan Roberts.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 111-NFPA 5000-2021 [New Section after A.7.2.1.1]	

Submitter Information Verification

Submitter Full Name: Shamim Rashid-sumar
Organization: National Ready Mixed Concrete Association
Affiliation: National Ready Mixed Concrete Association
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 31 15:22:28 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: The committee determined that this annex note was too broad for inclusion. The technical committee asks that the task group reviews this language and provide specific topics and information that should be included. The technical committee welcomes Public Comment on this topic during the Second Draft phase.

Public Input No. 111-NFPA 5000-2021 [New Section after A.7.2.1.1]

A.7.2.3.2.13

See also 37.1.

Statement of Problem and Substantiation for Public Input

Section 7.2.3.2.13 indicates combustible materials that are permitted in accordance with NFPA 5000 for Type I and Type II Construction. However, Section 37.1 also includes provisions for permitted combustible materials in Exterior Wall Construction, including Types I and II construction.

The new annex note is being provided for clarification that the provisions of Section 37.1 may be applicable in addition to the provisions of Section 7.2.3.2.13.

This public input does not make any technical changes but provides clarification to avoid confusion.

This public input is being made on behalf of a task group of NFPA 5000 set up by Standards Council, namely the NFPA 101/5000, BLC/SCM/FUN/FIZ Task Group. It is chaired by Moriel Kaplan and composed of Barry Badders, Ben Caldwell, Mark Chrisman, Paul Coats, David Collins, Richard Davis, Marcelo Hirschler, Bonnie Manley, Shamim Rashid-Sumar, Sarah Rice, and Jonathan Roberts.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 110-NFPA 5000-2021 [New Section after A.7.2.1.1]	Both public inputs are on behalf of an NFPA 5000 Task Group and provide reference to 37.1

Submitter Information Verification

Submitter Full Name: Shamim Rashid-sumar
Organization: National Ready Mixed Concrete Association
Affiliation: National Ready Mixed Concrete Association
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 31 15:29:17 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: The committee determined that this annex note was too broad for inclusion. The technical committee asks that the task group reviews this language and provide specific topics and information that should be included. The technical committee welcomes Public Comment on this topic during the Second Draft phase.

Public Input No. 56-NFPA 5000-2021 [Section No. A.7.2.3.2.14]

A.7.2.3.2.14

NFPA 90A recognizes the following types of plenums: ceiling cavity plenum, apparatus casing plenum, air-handling room plenum, and raised floor plenum. The requirements in NFPA 90A are different for each type of plenum and Chapter 3 of ~~this~~ ~~*Code*~~ ~~shows~~ NFPA 90A shows definitions for each type of plenum.

Statement of Problem and Substantiation for Public Input

NFPA 5000 does not contain definitions of the individual types of plenums in NFPA 90A, but NFPA 90A does.

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 24 18:04:49 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: FR-8077-NFPA 5000-2021
Statement: The committee agreed with the submitter concerning the proposed change to reference NFPA 90A.

Public Input No. 40-NFPA 5000-2021 [Section No. A.8.3.2.9]

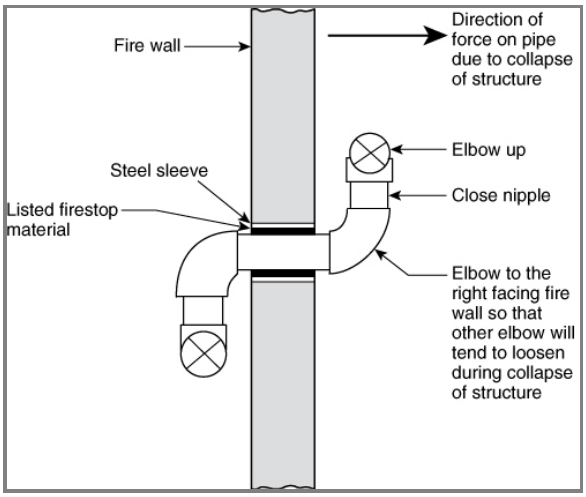
A.8.3.2.9

Combustibles should be kept at least 12 in. (305 mm) away from pipes, ducts, plates, and raceways where they penetrate the wall. Alternatively, a penetration seal with a T rating (as defined by ASTM E814, *Standard Test Method for Fire Tests of Through-Penetration Fire Stops*) of not less than 1 hour should be provided. [**221:** A.5.9]

Mechanical connections, such as double-threaded elbows *(see Figure A.8.3.2.9)* or flexible-braided steel pipe, that are acceptable to the authority having jurisdiction and that will limit stress on the wall should be considered. [**221:** A.5.9]

Steel-faced HC fire walls with gypsum ~~board core~~ liner panels or gypsum ~~board on~~ panels on stud HC fire walls should be provided with a concrete stanchion where pipes, raceways, or cables penetrate HC fire walls. [**221:** A.5.9]

Figure A.8.3.2.9 Pipe Penetration. [221:Figure A.5.9]



Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 19 09:50:00 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: The committee has resolved this Public Input as subsequent changes within NFPA 221 have been

provided. Since NFPA 5000 extracts text from NFPA 221, providing the change within NFPA 5000 was redundant.

Public Input No. 82-NFPA 5000-2021 [Section No. A.19.2.5.7.2.1(B)]

~~A.19.2.5.7.2.1(B)~~ —

Supervision of sleeping suites is accomplished by direct supervision by staff, smoke detection, or a combination of direct supervision and smoke detection. The three options that follow are available for meeting the supervision requirements for patient sleeping suites having an area not exceeding 7500 ft ^{2} (700 m ^{2}):

(1) Direct supervision of all sleeping rooms by staff from a normally attended location within the suite [in accordance with 19.2.5.7.2.1 (B)(1)(a)].

(2) Supervision of those sleeping rooms that can be directly supervised [in accordance with 19.2.5.7.2.1 (B)(1)(a)] and smoke detection provided in the sleeping rooms that cannot be directly supervised [in accordance with 19.2.5.7.2.1 (B)(1)(b)] as depicted in Figure A.19.2.5.7.2.1(B)(a) .

(3) Total (complete) coverage smoke detection throughout the sleeping suite [in accordance with 19.2.5.7.2.1 (B)(2)] as depicted in Figure A.19.2.5.7.2.1(B)(b) .

Where the option for total (complete) coverage smoke detection is used, the provision of 55.2.2.3 requires detectors in all occupiable areas that are suitable for smoke detector operation. For example, an area subject to shower steam would not require a smoke detector.

For patient sleeping suites having an area greater than 7500 ft ^{2} (700 m ^{2}), both direct supervision by staff and total (complete) coverage smoke detection throughout the sleeping suite are required [in accordance with 19.2.5.7.2.3 (C)] as depicted in Figure A.19.2.5.7.2.1(B)(c) .

Figure A.19.2.5.7.2.1(B)(a) All Sleeping Rooms Provided Either with Direct Supervision by Staff or Smoke Detection.

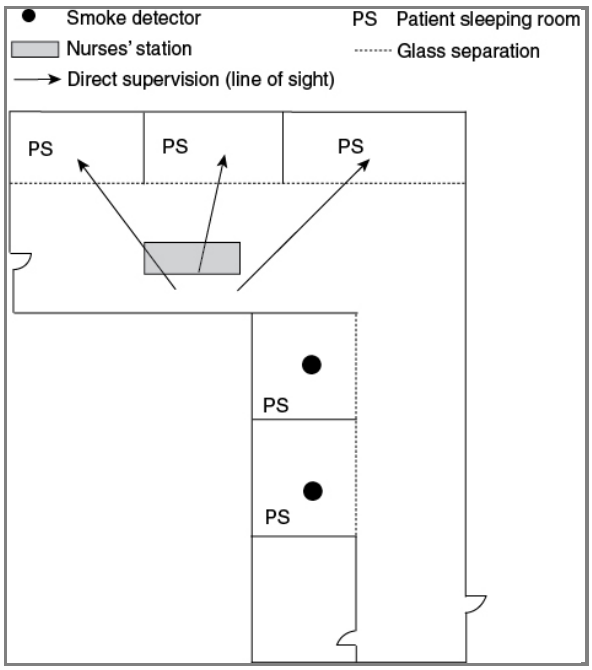
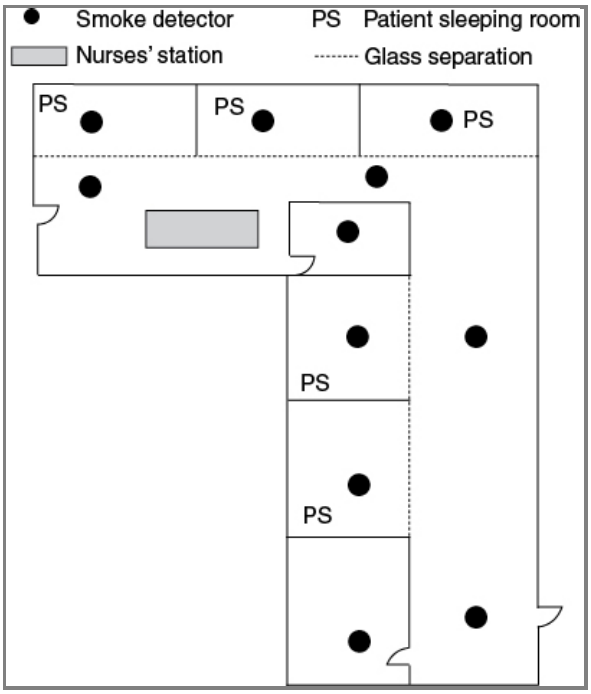
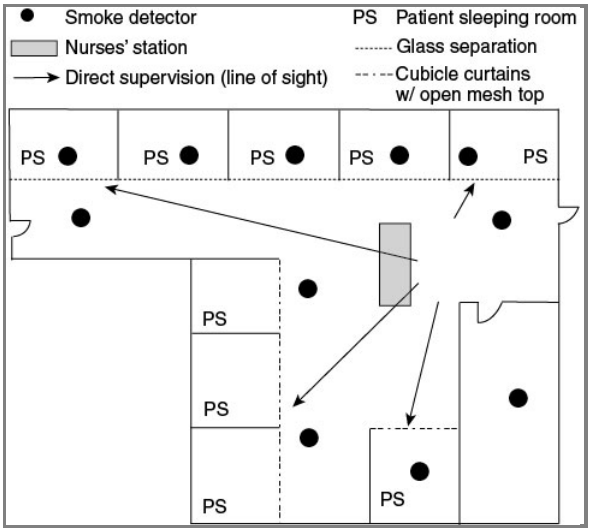


Figure A.19.2.5.7.2.1(B)(b) Supervision Provided by Total (Complete) Smoke Detection Throughout the Sleeping Suite.



~~**Figure A.19.2.5.7.2.1(B)(c) For Suites >7500 ft ^{2} (>700 m ^{2}), All Sleeping Rooms Must Be Provided with Direct Supervision by Staff and Total (Complete) Smoke Detection Installed Throughout the Sleeping Suite.**~~



Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurse's Stations. The task group recommends deletion of 19.2.5.7.2.1(B), in which case the Annex note needs to be deleted as well. Note that the figures address situations in which either supervision or smoke detection is required, but not both. The task group recommends eliminating this situation from Chapter 19, requiring either smoke detection or both smoke detection and supervision, depending on the suite size.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 81-NFPA 5000-2021 [Section No. 19.2.5.7.2.1(B)]	This is the annex note to that section

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 17:08:19 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: The annex language is being retained based on the action on PI-81.

Public Input No. 83-NFPA 5000-2021 [Section No. A.19.2.5.7.2.1(B)(1)]

~~A.19.2.5.7.2.1(B)(1)~~ —

~~The interior partitions or walls might extend full height to the ceiling, provided that they do not obscure visual supervision of the suite. Where they do obscure visual supervision, see 19.2.5.7.2.1 (B)(2).~~

Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurse's Stations. The task group recommends deleting 19.2.5.7.2.1(B)(1); therefore this Annex note also needs to be deleted.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 81-NFPA 5000-2021 [Section No. 19.2.5.7.2.1(B)]	This is the annex note to that section

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
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Submittal Date: Wed May 26 17:11:11 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: The annex language is being retained based on the action on PI-81.

Public Input No. 85-NFPA 5000-2021 [Section No. A.19.2.5.7.2.3(B)(1)]

A.19.2.5.7.2.3(B)(1)

The ~~alternative of 19.2.5.7.2.1(B) (1)(b) is not to be applied, as 19.2.5.7.2.3(B)(2) requires total coverage automatic smoke detection for the suite that exceeds 7500 ft^2 (700 m^2) but not 10,000 ft^2 (930 m^2).~~ location (such as a nurse station) is considered "normally attended" if it is an area steadily used by staff throughout the period the area contains patients, and where at a given time within that period, there will generally be staff present. Uninterrupted physical staff presence within the nurse station for the entire period is not required for a nurse station to be "normally attended."

Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurse's Stations. This language is intended to clarify what is meant by "normally attended."

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 84-NFPA 5000-2021 [Section No. 19.2.5.7.2.3(B)]	This is the annex note to that section

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
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Submittal Date: Wed May 26 17:22:31 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: The existing language is being retained based on the action on PI-84.

Public Input No. 87-NFPA 5000-2021 [Section No. A.19.3.6.1(1)(c)]

~~A.19.3.6.1(1)(c)~~ —

~~The omission of smoke detection does not pertain to nurses' stations that are not continuously staffed as there would not be early detection by staff in such areas during "off" hours.~~

Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurse's Stations. This Annex note pertains to text recommended for deletion.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 86-NFPA 5000-2021 [Section No. 19.3.6.1]	This is an annex note for that section

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
State:
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Submittal Date: Wed May 26 17:38:29 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: The annex language is being retained based on the action on PI-86.

Public Input No. 88-NFPA 5000-2021 [Section No. A.19.3.6.1(2)]

~~**A.19.3.6.1(2)** —~~

~~A typical nurses' station would normally contain one or more of the following with associated furniture and furnishings:~~

(1) ~~Charting area~~

(2) ~~Clerical area~~

(3) ~~Nourishment station~~

(4) ~~Storage of small amounts of medications, medical equipment and supplies, clerical supplies, and linens~~

(5) ~~Patient monitoring and communication equipment~~

~~The omission of smoke detection does not pertain to nurses' stations that are not continuously staffed as there would not be early detection by staff in such areas during "off" hours.~~

Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurse's Stations. This is the Annex note for a section that is recommended for deletion.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 86-NFPA 5000-2021 [Section No. 19.3.6.1]	This is an annex note for that section

Submitter Information Verification

Submitter Full Name: John Rickard
Organization: P3 Consulting
Street Address:
City:
State:
Zip:
Submittal Date: Wed May 26 17:42:19 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: The annex language is being retained based on the action on PI-86.

Public Input No. 89-NFPA 5000-2021 [Section No. A.19.3.6.1(4)(b)]

~~A.19.3.6.1(4)(b)~~ ~~—~~

~~The omission of smoke detection does not pertain to nurses' stations that are not continuously staffed as there would not be early detection by staff in such areas during "off" hours.~~

Statement of Problem and Substantiation for Public Input

This Public Input is submitted by the Health Care Occupancies Task Group on Nurse's Stations. This is the Annex note for a section that is recommended for deletion.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 86-NFPA 5000-2021 [Section No. 19.3.6.1]	This is an annex note for that section

Submitter Information Verification

Submitter Full Name: John Rickard
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Street Address:
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Submittal Date: Wed May 26 17:43:41 EDT 2021
Committee: BLD-HEA

Committee Statement

Resolution: The annex language is being retained based on the action on PI-86.

Public Input No. 9-NFPA 5000-2021 [Section No. A.21.2.11.4]

A.21.2.11.4

It might be necessary to provide a certain number of resident sleeping rooms with doors providing a clear width of not less than 32 in. (810 mm) *(see 11.2.1.2)* to comply with the requirements for ~~the physically handicapped~~ accessible units with mobility features . Such sleeping rooms should be located where there is a direct accessible route to the exterior or to an area of safe refuge. *(See 21.3.7.)*

Statement of Problem and Substantiation for Public Input

The NFPA Disability Access Review and Advisory Committee (DARAC) requests an update to the terminology used to describe individuals with disabilities. In general, we suggest using “people first” language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, we recommend substituting the appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being “for” such people. For example, we would say “accessible parking” instead of “handicap parking”. The substitute terms we recommend are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.
We used following resources to develop our input:

- “Guidelines for Writing About People with Disabilities” ADA National Network at https://adata.org/factsheet/ADANN-writing
- “Disability Style Guide” National Center on Disability and Journalism at https://ncdj.org/style-guide/
- “Resources for Reporters Writing About Blindness and Vision Loss” American Fooundation for the Blind at https://www.afb.org/news-publications/press-room/reporter-resources-writing-about-blindness-vision-loss
- “Five Tips for Writing About People with Disabilities” Adaptive Sports Center at https://www.adaptivesports.org/blog/announcements/five-tips-writing-about-people-disabilities
- “Fact Sheet: Drug Addiction and Federal Disability Rights Laws” U.S. Department of Health and Hum Services: Office for Civil Rights at https://www.hhs.gov/sites/default/files/drug-addiction-aand-federal-disability-rights-laws-fact-sheet.pdf
- “People First Language” District of Columbia Office of Disability Rights at https://odr.dc.gov/page/people-first-language

Submitter Information Verification

Submitter Full Name: Marsha Mazz
Organization: United Spinal Association
Affiliation: Representing the DARAC Advisory Committee
Street Address:
City:
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Submittal Date: Thu May 06 14:05:25 EDT 2021
Committee: BLD-DET

Committee Statement

Resolution: FR-8165-NFPA 5000-2021
Statement: The TC agrees with the PI submitter's substantiation.

The NFPA Disability Access Review and Advisory Committee (DARAC) requests an update to the terminology used to describe individuals with disabilities. In general, we suggest using “people first” language to avoid characterizing a person or group of persons entirely by their disability. Also, where possible, we recommend substituting the appropriate technical term when describing building elements that are accessible to individuals with disabilities, rather than describing the element as being “for” such people. For example, we would say “accessible parking” instead of “handicap parking”. The substitute terms we recommend are found to be more acceptable to the disability community and its supporters and, therefore, demonstrate greater respect.

Public Input No. 60-NFPA 5000-2021 [Section No. A.48.3.3.2]

A.48.3.3.2

NFPA 275 is a test method designed specifically to assess whether a material, product, or assembly constitutes a thermal barrier. NFPA 275 contains requirements to meet two fire tests: a fire resistance (temperature transmission) test that does not permit flame penetration into the unexposed side and limits the allowable temperature rise on the unexposed side after a 15-minute exposure and a full-scale reaction-to-fire test (integrity fire test). The integrity fire test assesses whether the thermal barrier: (a) prevents ignition of the foam plastic insulation installed behind the thermal barrier or (b) prevents flashover of the installed system (i.e., thermal barrier and foam plastic insulation). The integrity fire test also assesses whether the smoke emission from the installed system is excessive. It is one of the following ~~four standard~~ three standard tests: NFPA 286; the room-corner test of FM Approval 4880, *Class 1 Fire Rating of Building Panels or Interior Finish Materials*; ~~UL 1040, *Standard for Fire Test of Insulated Wall Construction* ;~~ and UL 1715, *Standard for Fire Test of Interior Finish Material*. NFPA 286 is the only one of these standard fire tests that does not contain pass/fail criteria, however, NFPA 275, does contain pass/fail criteria for running NFPA 286, and they are the same pass/fail criteria as used in Chapter 10 of this Code .

Statement of Problem and Substantiation for Public Input

NFPA 275 is being amended and the large scale tests (25 and 50 ft corners in FM 4880 and UL 1040) which have not been conducted for many years, are being eliminated from NFPA 275. Also, there is no evidence that the parallel panel test in FM 4880 is suitable for assessing the appropriateness of a thermal barrier, and it is also being eliminated from NFPA 275.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 59-NFPA 5000-2021 [Section No. 48.3.3.2]	
Public Input No. 59-NFPA 5000-2021 [Section No. 48.3.3.2]	

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
Street Address:
City:
State:
Zip:
Submittal Date: Mon May 24 18:54:47 EDT 2021
Committee: BLD-SCM

Committee Statement

Resolution: FR-8133-NFPA 5000-2021
Statement: The committee agreed with the submitter. NFPA 275 has been amended as provided in the Public Input.

Public Input No. 41-NFPA 5000-2021 [Section No. D.2.5.6.7]

D.2.5.6.7 Exterior Walls.

Exterior walls shall meet at least one of the following requirements:

(1) Exterior walls complying with 7.2.5.6.1.1 or 7.2.5.6.1.2, bearing and nonbearing exterior walls shall be constructed with any of the following materials:

(2) Noncombustible material

(3) Limited combustible material

(4) Mass timber complying with Chapter 45, provided the exterior surface of the mass timber is protected by at least one layer of 5/8

~~Type~~

(a) in. type X gypsum

~~board~~

(a) panels

(b) Weather-resistive barrier in accordance with Section 37.4

(5) Other exterior walls having a required fire resistance rating of 2 hours or less shall be permitted to be constructed with any of the following materials:

(6) Noncombustible material shall be permitted.

(7) Limited-combustible material shall be permitted.

(8) Fire-retardant-treated wood shall be permitted. Approved fire-retardant-treated wood framing shall be permitted within the assembly of exterior walls having a horizontal separation of not less than 60 in. (1525 mm), provided that the fire resistance rating is maintained and the exposed outer and inner faces of such walls are constructed of limited-combustible or noncombustible materials.

(9) Cross-laminated timber complying with 45.5.7 shall be permitted provided the exterior surface of the cross-laminated timber is protected by one of the following:

(10) Fire-retardant-treated wood not less than 15/32 in. (12 mm) thick

(11) Gypsum

~~board not~~

(a)

i. panels not less than 1/2 in. (12.7 mm) thick

ii. Noncombustible material

Additional Proposed Changes

File Name	Description	Approved
NFPA_5000_Annex_D_Revision_Clean_Copy.docx		

Statement of Problem and Substantiation for Public Input

The Building Code Technical Committee of the Gypsum Association reviewed references to gypsum products throughout NFPA 5000 and identified several instances where incorrect terminology was used. This is one of several Public Inputs being submitted to ensure consistency in the use of gypsum terms throughout all codes, standards, and industry publications.

NOTE: Terra destroyed the formatting. The attached file shows the changes, which are limited to (1)(c) and (1)(d)(ii). (Changing "5/8 Type X gypsum board" to "5/8 in. type X gypsum panels and "board" to "panels.")

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
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Zip:
Submittal Date: Wed May 19 10:21:40 EDT 2021
Committee: BLD-BLC

Committee Statement

Resolution: FR-8097-NFPA 5000-2021
Statement: The committee agreed with the submitter's attached Word document for revision. The purpose is to match industry terminology found within NFPA 5000.

D.2.5.6.7 Exterior Walls.

Exterior walls shall meet at least one of the following requirements:

(1) Exterior walls complying with 7.2.5.6.1.1 or 7.2.5.6.1.2, bearing and nonbearing exterior walls shall be constructed with any of the following materials:

(a) Noncombustible material

(b) Limited combustible material

(c) Mass timber complying with Chapter 45, provided the exterior surface of the mass timber is protected by at least one layer of 5⁄8 in. ~~T~~type X gypsum ~~board~~panels

….

(a) Cross-laminated timber complying with 45.5.7 shall be permitted provided the exterior surface of the cross-laminated timber is protected by one of the following:

(i) Fire-retardant-treated wood not less than 15⁄32 in. (12 mm) thick

(ii) Gypsum ~~board~~panels not less than 1⁄2 in. (12.7 mm) thick

Public Input No. 65-NFPA 5000-2021 [New Section after G.1.2]

TITLE OF NEW CONTENT

GA Publications. Gypsum Association, 962 Wayne Avenue, Suite 620, Silver Spring, MD 20910

GA 253, Application of Gypsum Sheathing, 2018.

Statement of Problem and Substantiation for Public Input

This PI adds GA 253 as a referenced standard. A related PI adds GA-253 as an optional alternative to ASTM C1280, as some users prefer the industry publication.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 64-NFPA 5000-2021 [Section No. 47.2.1.1.2]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
State:
Zip:
Submittal Date: Tue May 25 14:05:17 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: CI-8045-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 24-NFPA 5000-2021 [Section No. G.1.2.8]

G.1.2.8 ASTM Publications.

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

ASTM C29/C29M, *Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate*, 2017a.

ASTM C136/C136M, *Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates*, 2014.

ASTM D56, *Standard Test Method for Flash Point by Tag Closed Cup Tester*, 2016a.

ASTM D86, *Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure,*2018.

ASTM D93, *Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester*, 2018.

ASTM D448, *Standard Classification for Sizes of Aggregate for Road and Bridge Construction*, 2012 (2017).

ASTM D1079, *Standard Terminology Relating to Roofing and Waterproofing*, 2018 e1.

ASTM D2859, *Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials*, 2016 (2021) .

ASTM D3278, *Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus*, 1996, (2011).

ASTM D3828, *Standard Test Methods for Flash Point by Small Scale Closed Cup Tester*, 2016a.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials,*~~2019a~~ 2021 .

ASTM E96/E96M, *Standard Test Methods for Water Vapor Transmission of Materials*, 2016.

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials,*~~2018c e1~~ 2020 .

ASTM E648, *Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source,*~~2017a~~ 2019a e1 .

ASTM E736/E736M, *Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members*, 2017.

ASTM E814, *Standard Test Method for Fire Tests of Penetration Firestop Systems,* 2013a (2017).

ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, 2017.

ASTM E1472, *Standard Guide for Documenting Computer Software for Fire Models,* 2007 (withdrawn 2011).

ASTM E1592, *Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference,* 2005 (2017).

ASTM E1886, *Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials*, 2013a.

ASTM E1966, *Standard Test Method for Fire-Resistive Joint Systems,* 2015 (2019).

ASTM E1996, *Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes*, 2017.

ASTM E2030, *Guide for Recommended Uses of Photoluminescent (Phosphorescent) Safety Markings*, 2009a (withdrawn 2018).

ASTM E2174, *Standard Practice for On-Site Inspection of Installed Firestops*, 2018.

ASTM E2280, *Standard Guide for Fire Hazard Assessment of the Effect of Upholstered Seating Furniture within Patient Rooms of Health Care Facilities*, 2017.

ASTM E2307, *Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-Scale, Multi-Story Test Apparatus*, ~~2015b e1~~ 2020 .

ASTM E2393, *Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers*, 2010a, (2015).

ASTM E2396/E2396M, *Standard Test Method for Saturated Water Permeability of Granular Drainage Media [Falling-Head Method] for Vegetative (Green) Roof Systems,*2019.

ASTM E2397/E2397M, *Standard Practice for Determination of Dead Loads and Live Loads Associated with Vegetative (Green) Roof Systems,*2019.

ASTM E2398/E2398M, *Standard Test Method for Water Capture and Media Retention of Geocomposite Drain Layers for Vegetative (Green) Roof Systems,*2019.

ASTM E2399/E2399M, *Standard Test Method for Maximum Media Density for Dead Load Analysis of Vegetative (Green) Roof Systems,*2019.

ASTM E2484, *Standard Specification for Multi-Story Building External Evacuation Controlled Descent Devices*, 2008(2015).

ASTM E2513, *Standard Specification for Multi-Story Building External Evacuation Platform Rescue Systems*,

2007(2012).

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

ASTM F1637, *Standard Practice for Safe Walking Surfaces*, 2019.

ASTM F1679, *Standard Test Method for Using a Variable Incidence Tribometer (VIT),*2004 e1 (withdrawn 2006).

ASTM F2291, *Standard Practice for Design of Amusement Rides or Devices*, 2019.

Statement of Problem and Substantiation for Public Input

date updates for fire tests

Submitter Information Verification

Submitter Full Name: Marcelo Hirschler
Organization: GBH International
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Submittal Date: Mon May 17 19:56:24 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: CI-8045-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 67-NFPA 5000-2021 [Section No. G.1.2.8]

G.1.2.8 ASTM Publications.

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

ASTM C29/C29M, *Standard Test Method for Bulk Density ("Unit Weight") and Voids in Aggregate*, 2017a.

ASTM C136/C136M, *Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates*, 2014.

ASTM C1658/C1658M, *Standard Specification for Glass Mat Gypsum Panels*

ASTM D56, *Standard Test Method for Flash Point by Tag Closed Cup Tester*, 2016a.

ASTM D86, *Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure,*2018.

ASTM D93, *Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester*, 2018.

ASTM D448, *Standard Classification for Sizes of Aggregate for Road and Bridge Construction*, 2012 (2017).

ASTM D1079, *Standard Terminology Relating to Roofing and Waterproofing*, 2018 e1.

ASTM D2859, *Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials*, 2016.

ASTM D3278, *Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus*, 1996, (2011).

ASTM D3828, *Standard Test Methods for Flash Point by Small Scale Closed Cup Tester*, 2016a.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials,*2019a.

ASTM E96/E96M, *Standard Test Methods for Water Vapor Transmission of Materials*, 2016.

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials,*2018c e1.

ASTM E648, *Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source,*2017a.

ASTM E736/E736M, *Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members*, 2017.

ASTM E814, *Standard Test Method for Fire Tests of Penetration Firestop Systems,* 2013a (2017).

ASTM E1354, *Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*, 2017.

ASTM E1472, *Standard Guide for Documenting Computer Software for Fire Models,* 2007 (withdrawn 2011).

ASTM E1592, *Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference,* 2005 (2017).

ASTM E1886, *Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials*, 2013a.

ASTM E1966, *Standard Test Method for Fire-Resistive Joint Systems,* 2015 (2019).

ASTM E1996, *Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes*, 2017.

ASTM E2030, *Guide for Recommended Uses of Photoluminescent (Phosphorescent) Safety Markings*, 2009a (withdrawn 2018).

ASTM E2174, *Standard Practice for On-Site Inspection of Installed Firestops*, 2018.

ASTM E2280, *Standard Guide for Fire Hazard Assessment of the Effect of Upholstered Seating Furniture within Patient Rooms of Health Care Facilities*, 2017.

ASTM E2307, *Standard Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems Using Intermediate-Scale, Multi-Story Test Apparatus*, 2015b e1.

ASTM E2393, *Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers*, 2010a, (2015).

ASTM E2396/E2396M, *Standard Test Method for Saturated Water Permeability of Granular Drainage Media [Falling-Head Method] for Vegetative (Green) Roof Systems,*2019.

ASTM E2397/E2397M, *Standard Practice for Determination of Dead Loads and Live Loads Associated with Vegetative (Green) Roof Systems,*2019.

ASTM E2398/E2398M, *Standard Test Method for Water Capture and Media Retention of Geocomposite Drain Layers for Vegetative (Green) Roof Systems,*2019.

ASTM E2399/E2399M, *Standard Test Method for Maximum Media Density for Dead Load Analysis of Vegetative (Green) Roof Systems,*2019.

ASTM E2484, *Standard Specification for Multi-Story Building External Evacuation Controlled Descent Devices*, 2008(2015).

ASTM E2513, *Standard Specification for Multi-Story Building External Evacuation Platform Rescue Systems*, 2007(2012).

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

ASTM F1637, *Standard Practice for Safe Walking Surfaces*, 2019.

ASTM F1679, *Standard Test Method for Using a Variable Incidence Tribometer (VIT),*2004 e1 (withdrawn 2006).

ASTM F2291, *Standard Practice for Design of Amusement Rides or Devices*, 2019.

Statement of Problem and Substantiation for Public Input

This is a companion PI to PI 66, which adds ASTM C1658 to section 47.2.2.1. This PI simply adds it to the referenced standards section.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 66-NFPA 5000-2021 [Section No. 47.2.2.1]	

Submitter Information Verification

Submitter Full Name: Timothy Earl
Organization: GBH International
Affiliation: the Gypsum Association
Street Address:
City:
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Zip:
Submittal Date: Tue May 25 14:22:43 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: CI-8045-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 47-NFPA 5000-2021 [Section No. G.1.2.19]

G.1.2.19 SFPE Publications.

SFPE, 9711 Washingtonian Blvd., Suite 380, Gaithersburg, MD 20878. www.sfpe.org

SFPE Code Official's Guide to Performance-Based Design Review, 2004.

SFPE Engineering Guide—Evaluation of the Computer Fire Model DETACT-QS, 2002.

SFPE Engineering Guide to Human Behavior in Fire, 2018.

SFPE Engineering Guide to Performance-Based Fire Protection, 2007.

SFPE

~~*Engineering Standard on Calculating Fire Exposures to Structures* , 2011.SFPE~~

Evaluation of Enclosure Temperature Empirical Models, Hunt, S., Cutonilli, J. and Hurley, M., 2010.

SFPE Guidelines for Peer Review in the Fire Protection Design Process ,

~~2009~~

2020 .

SFPE Guidelines for Substantiating a Fire Model for a Given Application , 2011.

SFPE Handbook of Fire Protection Engineering, fifth edition, 2016.

SFPE S.01, *Standard on Calculating Fire Exposures to Structures* , 2011.

SFPE S.02, *Engineering Standard on Calculation Methods to Predict the Thermal Performance of Structural and Fire Resistive Assemblies* , 2015.

Statement of Problem and Substantiation for Public Input

First edit was made since the SFPE Fire Exposure Standard is listed twice.. The second edit was made to include correct edition of the Peer Review Guide.

Submitter Information Verification

Submitter Full Name: Chris Jelenewicz
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Street Address:
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Zip:
Submittal Date: Thu May 20 14:54:12 EDT 2021
Committee: BLD-FUN

Committee Statement

Resolution: CI-8045-NFPA 5000-2021

Statement: This committee input serves as a placeholder to permit reference publications to be updated at the second draft (public comment) stage via second revisions. All BLD-XXX technical committees are on notice to advise BLD-FUN if there is a technical reason to not update a referenced publication to the most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.

Public Input No. 125-NFPA 5000-2021 [Section No. G.1.2.20]

G.1.2.20 UL Publications.

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

UL 10B, *Fire Tests of Door Assemblies,* 2008, revised ~~2015~~ 2020 .

UL 10C, *Positive Pressure Fire Tests of Door Assemblies,*2016.

UL 263, *Fire Tests of Building Construction and Materials,* 2011, revised ~~2019~~ 2020 .

UL 580, *Tests for Uplift Resistance of Roof Assemblies*, 2006, revised ~~2013~~ 2019 .

UL 723, *Test for Surface Burning Characteristics of Building Materials*, 2018.

UL 924, *Emergency Lighting and Power Equipment*, 2016.

UL 1040, *Fire Test of Insulated Wall Construction*, 1996, revised 2017.

UL 1256, *Fire Test of Roof Deck Constructions*, 2002, revised ~~2013~~ 2018 .

UL 1479, *Fire Tests of Penetration Firestops,* 2015, revised 2021 .

UL 1588, *Outline of Investigation for Roof and Gutter De-Icing Cable Units*, 2002.

UL 1703, *Flat-Plate Photovoltaic Modules and Panels,*2002, revised ~~2017~~ 2019 .

UL 1715, *Fire Test of Interior Finish Material*, 1997, revised 2017.

UL 1897, *Uplift Tests for Roof Covering Systems*, 2015, revised 2020 .

UL 2079, *Tests for Fire Resistance of Building Joint Systems,*2015, revised 2020 .

UL 2703, *Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels*, 2015, revised 2021 .

UL Product iQ, www.ul.com/PiQ

Statement of Problem and Substantiation for Public Input

Update UL references to most recent editions

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 120-NFPA 5000-2021 [Section No. 2.3.38]	

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Committee Statement

Resolution: CI-8045-NFPA 5000-2021

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most current edition at the second draft stage and no direction will be considered concurrence with updating to the current edition. Any differing recommendations from multiple committees on the same publication will be adjudicated by the Building Code Correlating Committee.