



## Public Input No. 129-NFPA 5000-2021 [ Global Input ]

**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~~ in 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~~ in 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 ft<sup>2</sup> (0.55 m<sup>2</sup>), 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 ft<sup>2</sup> (1.1 m<sup>2</sup>) 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 ft<sup>2</sup> (1.1 m<sup>2</sup>) 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 ~~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 55.2.2.1 that 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 ft<sup>2</sup> (1115 m<sup>2</sup>) in fire area
- (3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft<sup>2</sup> (2230 m<sup>2</sup>)

**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 ft<sup>2</sup> (1115 m<sup>2</sup>) in fire area
- (3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft<sup>2</sup> (2230 m<sup>2</sup>)

**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 ft<sup>2</sup> (93 m<sup>2</sup>)
- (3) Storage facilities of less than 1000 ft<sup>2</sup> (93 m<sup>2</sup>), 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 ft<sup>2</sup> (37 m<sup>2</sup>) 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 1 1/2 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/ft<sup>2</sup> (22.7 MJ/m<sup>2</sup>) 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 3 1/4 in. (82.6 mm).
  - (2) The density of the foam plastic insulation ranges between 1.5 lb/ft<sup>3</sup> to 2.0 lb/ft<sup>3</sup> (24 kg/m<sup>3</sup> to 32 kg/m<sup>3</sup>).
  - (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 ft<sup>2</sup> (9 m<sup>2</sup>).

**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 ft<sup>2</sup> (9 m<sup>2</sup>).

**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 1¼ 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 ft<sup>2</sup> (1.5 m<sup>2</sup>), 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

| <u>File Name</u>                                 | <u>Description</u> <u>Approved</u> |
|--------------------------------------------------|------------------------------------|
| 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  
**Organization:** National Fire Sprinkler Associ  
**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~~ in 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~~ in 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 ft<sup>2</sup> (0.55 m<sup>2</sup>), 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 ft<sup>2</sup> (1.1 m<sup>2</sup>) 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 ft<sup>2</sup> (1.1 m<sup>2</sup>) 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 55.2.2.1 that 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 ft<sup>2</sup> (1115 m<sup>2</sup>) in fire area
- (3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft<sup>2</sup> (2230 m<sup>2</sup>)

**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 ft<sup>2</sup> (1115 m<sup>2</sup>) in fire area
- (3) Where the total area of all floors, including mezzanines, exceeds 24,000 ft<sup>2</sup> (2230 m<sup>2</sup>)

**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 ft<sup>2</sup> (93 m<sup>2</sup>)
- (3) Storage facilities of less than 1000 ft<sup>2</sup> (93 m<sup>2</sup>), 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 ft<sup>2</sup> (37 m<sup>2</sup>) 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 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/ft<sup>2</sup> (22.7 MJ/m<sup>2</sup>) 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/ft<sup>3</sup> to 2.0 lb/ft<sup>3</sup> (24 kg/m<sup>3</sup> to 32 kg/m<sup>3</sup>).
  - (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 ft<sup>2</sup> (9 m<sup>2</sup>).

**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 ft<sup>2</sup> (9 m<sup>2</sup>).

**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 ft<sup>2</sup> (1.5 m<sup>2</sup>), 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. 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

| <b><u>Related Input</u></b>                            | <b><u>Relationship</u></b> |
|--------------------------------------------------------|----------------------------|
| Public Input No. 114-NFPA 5000-2021 [Section No. 55.3] |                            |

## Submitter Information Verification

**Submitter Full Name:** Jeffrey Hugo  
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**Affiliation:** NFSA  
**Street Address:**  
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**Submittal Date:** Tue Jun 01 11:20:59 EDT 2021  
**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

| <u>Related Input</u>                                                        | <u>Relationship</u> |
|-----------------------------------------------------------------------------|---------------------|
| <a href="#">Public Input No. 48-NFPA 5000-2021 [Section No. 55.3.2.1.1]</a> |                     |
| <a href="#">Public Input No. 48-NFPA 5000-2021 [Section No. 55.3.2.1.1]</a> |                     |

## Submitter Information Verification

**Submitter Full Name:** Jeffrey Hugo  
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**Affiliation:** NFSA  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**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. 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 (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 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 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.

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

| <u>File Name</u>                       | <u>Description</u> | <u>Approved</u> |
|----------------------------------------|--------------------|-----------------|
| 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](http://www.nfpa.org/codes).

For technical assistance, please call NFPA at 1-800-344-3555

## FOR OFFICE USE ONLY

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 8<sup>th</sup> 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)]

55.2.2.10.5 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)

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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](mailto:proposals_comments@nfpa.org)



## 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<sup>2</sup> (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<sup>2</sup> (232 m<sup>2</sup>) 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**

| <u>Related Input</u>                                        | <u>Relationship</u> |
|-------------------------------------------------------------|---------------------|
| 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  
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**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

| <u>Related Input</u>                                                 | <u>Relationship</u> |
|----------------------------------------------------------------------|---------------------|
| <u>Public Input No. 49-NFPA 5000-2021 [New Section after 3.3.23]</u> |                     |
| <u>Public Input No. 49-NFPA 5000-2021 [New Section after 3.3.23]</u> |                     |

### Submitter Information Verification

**Submitter Full Name:** Jeffrey Hugo  
**Organization:** National Fire Sprinkler Associ  
**Affiliation:** National Fire Sprinkler Association  
**Street Address:**  
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**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

| <u>Fire Suppression System</u>                                 | <u>Installation Standard</u>                                                                       |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Low-, medium-, and high-expansion foam systems                 | NFPA 11, <i>Standard for Low-, Medium-, and High-Expansion Foam Systems</i>                        |
| Carbon dioxide systems                                         | NFPA 12, <i>Standard on Carbon Dioxide Extinguishing Systems</i>                                   |
| Halon 1301 systems                                             | NFPA 12A, <i>Standard on Halon 1301 Fire Extinguishing Systems</i>                                 |
| Water spray fixed systems                                      | NFPA 15, <i>Standard for Water Spray Fixed Systems for Fire Protection</i>                         |
| Deluge foam-water sprinkler systems                            | NFPA 16, <i>Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems</i> |
| Dry chemical systems                                           | NFPA 17, <i>Standard for Dry Chemical Extinguishing Systems</i>                                    |
| Wet chemical systems                                           | NFPA 17A, <i>Standard for Wet Chemical Extinguishing Systems</i>                                   |
| Water mist systems                                             | NFPA 750, <i>Standard on Water Mist Fire Protection Systems</i>                                    |
| <u>Hybrid (water and inert-gas) fire extinguishing systems</u> | <u>NFPA 770, <i>Standard on Hybrid (Water and Inert-Gas) Fire Extinguishing Systems</i></u>        |
| <u>Clean agent extinguishing systems</u>                       | <u>NFPA 2001, <i>Standard on Clean Agent Fire Extinguishing Systems</i></u>                        |

**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

**Street Address:**

**City:**

**State:**

**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.