

NFPA 5000 REFERENCES TO NFPA 13/13D/13R

Items highlighted in green: Retain reference to NFPA 13/13D/13R as these are not requirements for sprinkler systems to be installed in accordance with the applicable standard.

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7.1.5.2.3.2

Where buildings are protected throughout with an approved automatic sprinkler system that is installed in accordance with ~~NFPA 13, NFPA 13D, or NFPA 13R~~55.3.1.1(1), 55.3.1.1(2), or 55.3.1.1(3), the distance shall be permitted to be increased to 450 ft (137 m). [1:18.2.3.2.2.1]

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 ~~55.3.1.1(1)~~ NFPA 11, NFPA 12, ~~NFPA 13~~ NFPA 15, NFPA 16, NFPA 17, NFPA 750, or NFPA 2001.

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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

8.3.2.17.2.3

For light hazard and ordinary hazard (Group 1 or Group 2) occupancies as defined in ~~NFPA 13~~, in lieu of providing end walls, the fire wall shall be permitted to extend to a distance of at least 30 in. (760 mm) beyond the exterior face of the exterior walls, as shown in Figure 8.3.2.17.2.3. [221:5.16.2.3]

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). [221:6.10.2.2]

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:

- (1) The convenience stair openings shall not serve as required means of egress.
- (2) The building shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 55.3.
- (3) *The convenience stair openings shall be protected in accordance with the method detailed for the protection of vertical openings in **NFPA 13**.
- (4) The area of the floor opening shall not exceed twice the horizontal projected area of the stairway.
- (5) Such openings shall not connect more than four contiguous stories unless otherwise permitted by Chapters 15 through 31 and 33 through 34.

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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:

1. The requirement of 8.12.6.2 shall not apply to escalators in large, open areas such as atriums and enclosed shopping malls.
2. *In buildings protected throughout by an approved automatic sprinkler system in accordance with **NFPA 1355.3.1.1(1) or NFPA 13R55.3.1.1(2)**, escalators or moving walk openings shall be permitted to be protected in accordance with the method detailed in **NFPA 13** 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.
3. Escalators shall be permitted to be protected in accordance with 8.12.6.3.

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8.12.6.3

In buildings protected throughout by an approved automatic sprinkler system in accordance with **NFPA 1355.3.1.1(1) or NFPA 13R55.3.1.1(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 1355.3.1.1(1)**
- (2) *Where concealed spaces serve as plenums

11.13.2.3

The absence of sprinklers in the normally unoccupied building service equipment support area as permitted by **55.3.3.1(4)NFPA 13** shall not cause a building to be classified as nonsprinklered for purposes of applying the provisions of 11.13.2.2.

11.13.3.3

The absence of sprinklers in the normally unoccupied building service equipment support area as permitted by **55.3.3.1(4)NFPA 13** shall not cause a building to be classified as nonsprinklered for purposes of applying the provisions of 11.13.3.2.

11.13.5.3

The absence of sprinklers in the normally unoccupied building service equipment support area as permitted by **55.3.3.1(4)NFPA 13**, shall not cause a building to be classified as nonsprinklered for purposes of applying the provisions of 11.13.5.2.

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**.

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19.3.5.6

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

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19.3.5.7

Sprinklers in areas where cubicle curtains are installed shall be in accordance with **NFPA 13**.

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20.2.2.12.2

In buildings protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with ~~55.3.1.1(1)NFPA 13~~, 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. (See 3.3.37, *Area of Refuge*.)

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 ~~55.3.1.1(1)NFPA 13~~, and 55.3.2.

20.2.5.3.1

In buildings protected throughout by an approved, electrically supervised automatic sprinkler system in accordance with ~~55.3.1.1(1)NFPA 13~~, 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 ~~55.3.1.1(1)NFPA 13~~.

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 ~~55.3.1.1(1)NFPA 13, 55.3.1.1(2)NFPA 13D, or 55.3.1.1(3)NFPA 13R~~.

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 ~~55.3.1.1(1), 55.3.1.1(2), or 55.3.1.1(3)NFPA 13, NFPA 13D, or NFPA 13R~~.

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 ~~55.3.1.1(1), 55.3.1.1(2), or 55.3.1.1(3)NFPA 13, NFPA 13D, or NFPA 13R~~.

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 1355.3.1.1(1)**, closets less than 12 ft² (1.1 m²) in area in individual dwelling units shall not be required to be sprinklered.

23.3.6.2.5

In buildings sprinklered in accordance with **NFPA 1355.3.1.1(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 1355.3.1.1(1)** or **NFPA 13R55.3.1.1(2)**.

24.3.5.3

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 24.3.5.4. 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 13R55.3.1.1(2)** shall be permitted.

24.3.5.5

The provisions for draft stops and closely spaced sprinklers in **NFPA 13** shall not apply to openings complying with 8.12.5 where the opening is within the guest room or guest suite.

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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 13R55.3.1.1(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 1355.3.1.1(1)** or **NFPA 13R55.3.1.1(2)**.

25.3.5.3 Closets.

In buildings sprinklered in accordance with **NFPA 1355.3.1.1(1)**, closets shall meet the following requirements:

1. Closets of less than 12 ft² (1.1 m²) in individual dwelling units shall not be required to be sprinklered.
2. Closets that contain equipment such as washers, dryers, furnaces, or water heaters shall be sprinklered, regardless of size.

25.3.5.4 Convenience Openings.

The draft stop and closely spaced sprinkler requirements of **NFPA 13** shall not be required for convenience openings complying with 8.12.5 where the convenience opening is within the dwelling unit.

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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 13D55.3.1.1(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 13R55.3.1.1(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 13D55.3.1.1(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 13D55.3.1.1(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 1355.3.1.1(1)** and **NFPA 13R55.3.1.1(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 13D55.3.1.1(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 1355.3.1.1\(1\)](#) 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 1355.3.1.1\(1\)](#) 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 1355.3.1.1\(1\)](#) 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 1355.3.1.1\(1\)](#) 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 1355.3.1.1\(1\)](#) and 55.3.2.

27.2.2.12.2

In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with [NFPA 1355.3.1.1\(1\)](#) 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. (See 3.3.37, *Area of Refuge*.)

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 1355.3.1.1\(1\)](#) 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 1355.3.1.1\(1\)](#) 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 1355.3.1.1\(1\)](#) and 55.3.2.

27.2.5.3 Dead Ends.

□

27.2.5.3.1

In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with [NFPA 1355.3.1.1\(1\)](#) 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 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(1) and 55.3.2 unprotected vertical openings shall be permitted at one of the following locations:
 1. Between any two floors
 2. 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 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.

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27.3.2.1.2

In general storage and stock areas protected by an automatic extinguishing system in accordance with NFPA 1355.3.1.1(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 1355.3.1.1(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 Corridors.

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 1355.3.1.1(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 1355.3.1.1(1)** and 55.3.2; however, the exceptions in **NFPA 13** 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.

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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 1355.3.1.1(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~~

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

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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 1355.3.1.1(1)~~ and 55.3.2 and the applicable provisions of the following:

1. NFPA 1

~~2. NFPA 13~~

~~3.2. NFPA 30~~

~~4.3. NFPA 30B~~

~~5.4.28.2.2.12.2~~

~~6.5.~~ In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 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. (See 3.3.37, *Area of Refuge*.)

28.2.2.12.2

In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with ~~NFPA 1355.3.1.1(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. (See 3.3.37, *Area of Refuge*.)

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 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(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.

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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 1355.3.1.1(1) and 55.3.2

29.2.5.1 General.

Means of egress shall be arranged in accordance with Section 11.5 and shall not exceed that provided by Table 29.2.5.1.

Table 29.2.5.1 Arrangement of Means of Egress

Arrangement	Industrial Occupancy		Low-Hazard Industrial Occupancy	
	ft	m	ft	m
Dead-End Corridor Limits				
Protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 and 55.3.2	50	15	50	15
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 and 55.3.2	50	15	50	15
Common Path of Travel Limits				
Protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 and 55.3.2	100	30	100	30
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 and 55.3.2	50	15	50	15

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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
4. NFPA 15
5. NFPA 16
6. NFPA 17
7. NFPA 750
8. NFPA 2001

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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 55.3.1.1(1), NFPA 11, NFPA 12, NFPA 13, NFPA 15, NFPA 16, NFPA 17, NFPA 750, or NFPA 2001.

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Table 30.2.5 Arrangement of Means of Egress

Arrangement	Low-Hazard Storage Occupancy	Storage Occupancy	
		ft	m
Dead-End Corridor			
Protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 and 55.3.2	No limits	100	30
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 and 55.3.2	No limits	50	15
Common Path of Travel			
Protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 and 55.3.2	No limits	100	30
Not protected throughout by an approved, supervised automatic sprinkler system in accordance with NFPA 13 and 55.3.2	No limits	50	15

Replace NFPA 13 with 55.3.1.1(1) X4

30.8.3.5.1

Automatic sprinkler systems, where required, shall conform to NFPA 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(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 **55.3.1.1(1) and 55.3.2** and **NFPA 13**, 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.

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32.3.5.3

An enclosed area shall be protected by an approved sprinkler system in accordance with **NFPA 1355.3.1.1(1)**, unless such an area is one of the following:

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

Table 34.1.3.1

^bMaximum quantities are permitted to be increased 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with [NFPA 1355.3.1.1\(1\)](#). Where footnote c also applies, the increase for both footnote c and footnote d is permitted to be applied accumulatively.

^dThe permitted quantities are not limited in a building equipped throughout with an automatic sprinkler system installed in accordance with [NFPA 1355.3.1.1\(1\)](#) and designed in accordance with the protection criteria contained in Chapter 16 of NFPA 30.

^lPermitted only in buildings equipped throughout with an automatic sprinkler system in accordance with [NFPA 1355.3.1.1\(1\)](#).

^mThe permitted quantities are not limited in a building equipped throughout with an automatic sprinkler system installed in accordance with [NFPA 1355.3.1.1\(1\)](#).

Table 34.1.3.3.1a

^aMaximum quantities are permitted to be increased 100 percent in buildings that are sprinklered in accordance with [NFPA 1355.3.1.1\(1\)](#). Where footnote b also applies, the increase for both footnotes is permitted to be applied.

^cQuantities are not limited in buildings protected by an automatic sprinkler system complying with [NFPA 1355.3.1.1\(1\)](#).

Table 34.1.3.3.1.b

^aMaximum quantities are permitted to be increased 100 percent in buildings that are sprinklered in accordance with [NFPA 1355.3.1.1\(1\)](#). This increase shall not apply to highly toxic solids and liquids. Where footnote b also applies, the increase for both footnotes can be applied.

37.1.3.1 Parapets Not Required.

Parapets shall not be required where any of the following conditions exist:

1. Where unprotected openings are permitted
2. Where the roof slopes up more than 4 in. in 12 in. (100 mm in 305 mm) from the back of the exterior wall of the building, and the roof covering has a Class A rating
3. Where the exterior wall of the building is located 20 ft (6100 mm) from the property line or on an alley or public way 20 ft (6100 mm) or more wide
4. Where the entire building is protected by an automatic sprinkler system in accordance with [NFPA 1355.3.1.1\(1\)](#)
- 5.

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 1355.3.1.1\(1\)](#) or [NFPA 13R55.3.1.1\(2\)](#), 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

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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 1355.3.1.1\(1\)](#).

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 1355.3.1.1\(1\)](#).
 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 1355.3.1.1\(1\)](#).
3. The thermal barrier shall not be required in walk-in coolers in unsprinklered buildings, provided that all of the following conditions are met:
 1. The foam plastic insulation is used in thicknesses of 4 in. (100 mm) or less.
 2. The foam plastic insulation has a flame spread of 75 or less.
 3. The aggregate floor area of the walk-in coolers is 400 ft² (37 m²) or less.

4. The foam plastic insulation is covered either by aluminum not less than 0.032 in. (0.8 mm) thick or corrosion-resistant steel having a minimum base metal thickness of 0.016 in. (0.4 mm).
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:
 1. The foam plastic insulation meets all of the following requirements:
 1. It is 4 in. (100 mm) or less in thickness.
 2. It has a flame spread index of 25 or less.
 3. It has a smoke developed index of 450 or less.
 4. 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).
 2. The building is equipped throughout with an automatic sprinkler system in accordance with [NEPA 4355.3.1.1\(1\)](#).
5. 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:
 1. Blocking
 2. Tongue-and-groove joints
 3. Other approved type of edge support
 4. Other equivalent material
 2. 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*
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:
 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 0.3753/8 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
7. 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.

2. 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.
3. 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.
4. 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*.
5. 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:
 1. The foam plastic insulation 1/2 in. (13 mm) or less in thickness and having a potential heat of not more than 2000 Btu/ft² (22.7 MJ/m²) when tested in accordance with NFPA 259, is separated from the interior of the building by a least 2 in. (51 mm) of mineral fiber insulation or equivalent.
 2. The siding and foam plastic insulation are applied over existing siding.
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:
 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/ft³ to 2.0 lb/ft³ (24 kg/m³ to 32 kg/m³).
 3. The foam plastic insulation has a flame spread index of 25 or less.
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 1355.3.1.1\(1\)](#), or when the building is equipped with smoke and heat vents, each skylight shall have a maximum area within the curb of 100 ft² (9 m²).

48.7.3.7.2

The aggregate area limitations of 48.7.3.7.1 shall be permitted to be increased 100 percent where the building is equipped throughout with an automatic sprinkler system in accordance with [NFPA 1355.3.1.1\(1\)](#), 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 1355.3.1.1\(1\)](#).
2. The skylight shall serve as an approved fire-venting system.
3. In one- and two-family dwellings, or on buildings with an unclassified roof covering, skylights shall be separated from each other by a distance of not less than 16 in. (405 mm), measured in a horizontal plane, and each skylight shall not exceed a maximum area within the curb of 100 ft² (9 m²).

48.7.4.2

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

1. The plastic materials shall be protected on both sides by an automatic sprinkler system in accordance with [NFPA 1355.3.1.1\(1\)](#).
2. Plastic ceiling light diffusers shall meet the requirements of 48.7.2 and all of the following:
 1. Plastic ceiling light diffusers shall be supported directly or indirectly from the ceiling or roof construction by use of noncombustible hangers.
 2. Hangers shall be at least No. 12 gauge steel wire [0.106 in. (2.7 mm)], galvanized wire, or the equivalent.
 3. Plastic ceiling light diffusers, as installed, shall fall from their mountings at an ambient temperature not higher than 200°F (111°C) below the ignition temperature of the plastic material.
 4. Plastic light diffusers shall be mounted in the ceiling so that they remain in place at an ambient temperature of 175°F (79°C) for a period of not less than 15 minutes.
 5. Light-diffusing ceilings installed below sprinkler heads shall be installed so that they do not interfere with the effective operation of the automatic sprinkler system and shall provide access to all valves and sprinkler heads of the system.
 6. The maximum size of any single plastic light-transmitting panel shall not exceed 10 ft (3050 mm) or an area of 30 ft² (2.8 m²).

48.7.5.2

Unless an automatic sprinkler system is installed in accordance with [NFPA 1355.3.1.1\(1\)](#), 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 1355.3.1.1\(1\)](#), the maximum percentage area of an exterior wall in any story in light-transmitting plastic wall panels, and the maximum square footage of a single area given in Table 48.7.6.5.1, shall be permitted to be increased by 100 percent provided that the area of light-transmitting plastic wall panels does not exceed 50 percent of the wall area in any story, or the area permitted for unprotected openings, whichever is smaller.

48.7.7.2

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

1. The aggregate area of light-transmitting plastic glazing shall not exceed 25 percent of the area of any wall face of the story in which it is installed.
2. The area of a single pane of glazing installed above the first story shall not exceed 16 ft² (1.5 m²), and the vertical dimension of a single pane shall not exceed 48 in. (1220 mm).
3. Where an automatic sprinkler is provided throughout in accordance with [NFPA 1355.3.1.1\(1\)](#), 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 1355.3.1.1\(1\)](#).

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 1355.3.1.1(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 1355.3.1.1(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 1355.3.1.1(1)**.
2. Low hazard occupancy buildings, such as swimming pool shelters, shall be exempt from the area limitations of Table 48.7.8.4.1, provided that the building does not exceed 5000 ft² (465 m²) and has a minimum fire separation distance of 10 ft (3050 mm).
3. Greenhouses that are occupied for growing plants on a production or research basis, without public access, shall be exempt from the area limitations of Table 48.7.8.4.1, provided that they have a minimum fire separation distance of 48 in. (1220 mm).
4. Roof coverings over terraces and patios in residential occupancies shall be exempt from the area limitations of Table 48.7.8.4.1.

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**

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