

**5:70-4.12 Interior finish**

(a) The interior finish of walls and ceilings shall have a flame spread rating not greater than the class prescribed by Table 5:70-4.12(a).

1. The following are exceptions to (a) above:
  - i. The use of vinyl or paper wall coverings not exceeding 1/8th of an inch in thickness which is applied directly to a noncombustible or fire retardant treated wood substrate shall not be regulated by this section.
  - ii. Interior trim which does not exceed 10 percent of the aggregate wall and ceiling area of any room or space shall not be regulated by this section.
  - iii. When an approved automatic fire suppression system is provided, interior finish of Class II or III materials shall be permitted where Class I or II materials, respectively, are required by this section.
  - iv. Exposed portions of structural members complying with the requirements for heavy timber construction in accordance with the Uniform Construction Code shall not be regulated by this section.

Table 5:70-4.12(a)  
Interior Finish Requirements

Use Group	Exit Enclosures	Exit Access Enclosures	Rooms or Spaces
A †, E, I, R-1	I	II	III
All Other Use Groups	I	II	No Minimum

† See N.J.A.C. 5:70-4.16(a)2 for amusement buildings.

(b) The classification of interior finishes referred to herein corresponds to flame spread ratings determined by ASTM E84 as follows: Class I flame spread, 0-25; Class II flame spread, 26-75; Class III flame spread, 76-200. In all cases, the smoke developed rating determined by ASTM E84 shall not exceed 450.

(c) All existing interior finish materials which do not comply with the requirements of this section shall be removed or shall be treated with an approved fire retardant coating in accordance with the manufacturer's instructions to secure compliance with the requirements of this section.

(d) In buildings of Use Group I-3, interior furnishings, drapes, curtains, carpeting, decorations, bedding, etc. shall be flame retardant.

Amended by R.1987 d.247, effective June 15, 1987.

See: 18 N.J.R. 1225(a), 19 N.J.R. 1078(a).

Additions to table and (d) added.

Correction to rule, see 19 N.J.R. 1190(a).

Amended by R.1993 d.197, effective May 3, 1993.

See: 25 N.J.R. 393(a), 25 N.J.R. 1868(a).

Interior finish requirements include all use groups; educational facilities and hotels must meet requirements for enclosed rooms.

**5:70-4.13 Protection of interior stairways and other vertical openings**

(a) All interior stairways and other vertical openings connecting more than six floor levels shall be enclosed with approved assemblies having a fire resistance rating of not less than two hours with approved opening protectives.

(b) All interior stairways and other vertical openings connecting four to six floor levels shall be enclosed with approved assemblies having a fire resistance rating of not less than one hour with approved opening protectives.

(c) Interior stairways and other vertical openings connecting no more than three levels shall be enclosed with approved assemblies and opening protectives having a fire resistance as follows:

1. In Use Group A, a minimum 30 minute fire barrier shall be provided to protect all interior stairways and other vertical openings not exceeding three stories. Such fire barrier may be omitted:

i. When connecting the main floor and mezzanines; or

ii. When all the following conditions are met:

(1) The communicating area has a low hazard occupancy, or has a moderate hazard occupancy which is protected throughout by an automatic suppression system; and

(2) The lowest or next to the lowest level is a street floor; and

(3) The entire area is open and unobstructed in a manner such that it may be assumed that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants; and

(4) Exit capacity is sufficient to provide egress simultaneously for all the occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity; and

(5) Each floor level, considered separately, has at least one-half of its individual required exit capacity provided by an exit or exits leading directly out of that level without having to traverse another communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level.

2. In Use Group B, a minimum 30 minutes fire barrier shall be provided to protect all interior stairways and other vertical openings not exceeding three stories. Such fire barriers may be omitted in buildings not exceeding 3,000 square feet per floor or when the building is protected throughout by an approved automatic fire suppression system.

3. In Use Group E, a minimum one-hour fire barrier shall be provided to protect all interior stairways and

other vertical openings connecting not more than three floor levels. Such barrier may be omitted when the building is protected throughout by an approved automatic fire suppression system.

4. In Use Group F, a minimum one-hour fire barrier shall be provided to protect all interior stairways and other vertical openings not exceeding three floor levels. Such fire barrier may be omitted:

i. In special purpose occupancies when necessary for manufacturing operations and direct access is provided to at least one protected stairway;

ii. In buildings which are protected throughout by an approved automatic fire suppression system;

5. In Use Group H, a minimum one-hour fire barrier shall be provided to protect all interior stairways and other vertical openings not exceeding three floor levels. Such fire barrier may be omitted when necessary for manufacturing operations in a building where every floor level has direct access to at least two remote enclosed stairways or other approved exits.

6. In Use Group I-1, a minimum one-hour fire barrier shall be provided to protect all interior stairways and other vertical openings exceeding three floor levels. Such fire barrier may be omitted at either the top or bottom of a stairway which connects not more than two floor levels when such stairway does not serve as a required means of egress and the occupant load does not exceed 12, excluding staff.

7. In Use Group I-2, a minimum one-hour fire barrier shall be provided to protect all interior stairways and other vertical openings not exceeding three floor levels. Such fire barrier may be omitted when connecting not more than two floor levels which are separated by a one-hour fire barrier equipped with a self-closing or automatic-closing 20 minute door at the top or bottom of the stairway, when such stairway does not serve as a required means of egress.

8. (Reserved)

9. In Use Group M, a minimum 30 minute fire barrier shall be provided to protect all interior stairways and other vertical openings not exceeding three floor levels. Such fire barrier may be omitted when:

i. Openings connect only two floor levels, such as between the street floor and mezzanine or second floor; or

ii. Occupancies are protected throughout by an approved automatic fire suppression system.

10. In Use Group R-1, a minimum one-hour fire barrier shall be provided to protect all interior stairways and other vertical openings not exceeding three stories. Such fire barrier may be omitted:

i. In buildings which are protected throughout by an approved automatic fire suppression system installed in accordance with NFPA 13 or 13R; or

ii. In buildings with not more than 25 guests in which the following conditions are met:

(1) Every sleeping room is provided with an approved window having a sill height not greater than 44 inches;

(2) Every sleeping room above the second floor is provided with direct access to a fire escape or other approved secondary exit;

(3) Any exit access corridor exceeding eight feet in length which serves two means of egress, at least one of which is an unprotected vertical opening, shall be separated from the vertical opening by a one-hour fire barrier; and

(4) The building is protected throughout by an automatic fire alarm system, installed in accordance with the New Jersey Uniform Construction Code and supervised in accordance with N.J.A.C. 5:70-4.9(c).

11. In Use Group R-2, a minimum 30 minute fire barrier shall be provided to protect all interior stairways and other vertical openings not exceeding three stories. Such fire barrier may be omitted.

i. In buildings which are protected throughout by an approved automatic fire suppression system;

ii. When the vertical opening connects not more than two floor levels with not more than four dwelling units per floor and each dwelling unit has access to a fire escape or other approved secondary exit; or

iii. In owner-occupied buildings with not more than four dwelling units per floor, and in which the following conditions are met:

(1) Every sleeping room is provided with an approved window having a sill height not greater than 44 inches;

(2) Every dwelling unit or sleeping room above the second floor is provided with direct access to a fire escape or other approved secondary exit; and

(3) The building is protected throughout by an automatic fire alarm system, installed in accordance with the New Jersey Uniform Construction Code and supervised in accordance with N.J.A.C. 5:70-4.9(c).

Amended by R.1989 d.556, effective November 6, 1989.

See: 21 N.J.R. 2431(a), 21 N.J.R. 3453(a).

Requirements added regarding fire barriers protecting interior stairways and other vertical openings.

Amended by R.1995 d.58, effective March 6, 1995.

See: 26 N.J.R. 4258(a), 27 N.J.R. 878(b).

Amended by R.1995 d.59, effective March 6, 1995.

See: 26 N.J.R. 4249(a), 27 N.J.R. 891(a).

## Case Notes

Building owner's proposal of exemption from fire safety requirement of manual pull stations was properly denied. *Sixty North Arlington Avenue v. Bureau of Housing Inspection*, 96 N.J.A.R.2d (CAF) 76.

Failure to install firearms and enclose open stairwells was violative of fire codes warranting issuance of abatement order. *111 Halstead Street v. Department of Community Affairs*, 95 N.J.A.R.2d (CAF) 77.

**5:70-4.14 Information signs**

(a) A sign shall be provided at each floor landing in all interior stairways more than three stories in height designating the floor level above the floor of discharge.

(b) All elevator lobby call stations on all floor levels shall be marked with approved signs reading, "Use Stairways in Case of Fire—Do not Use Elevators".

**5:70-4.15 Smoke barriers**

(a) Wherever smoke barriers are required by this subchapter, they shall be constructed in accordance with the following provisions:

1. Smoke barriers shall have a fire resistance rating of not less than one-half hour and shall form an effective membrane continuous from outside wall to outside wall and from floor slab to floor or roof deck above, including continuity through all concealed spaces, such as those found above suspended ceilings, and including interstitial structural and mechanical spaces. Transfer grilles, whether equipped with fusible link-operated dampers or not, shall not be used in these partitions. Wire glass panels not exceeding 1,296 square inches in approved steel frames may be used in smoke barriers.

i. Exception to (a)1 above: Smoke barriers are not required in interstitial spaces when such spaces are designed and constructed with ceilings that provide resistance to the passage of fire and smoke equivalent to that provided by smoke barriers.

2. Doors in smoke barriers shall have a fire-resistance rating of not less than 20 minutes when tested in accordance with ASTM E152 without the hose stream and labeled by an approved agency. Double egress corridor doors shall have vision panels of one-quarter inch thick labeled wired glass mounted in approved steel frames. Such panels may also be provided in other doors in smoke barriers. The glass area of the vision panels shall be limited to 1,296 square inches for each door. The doors shall close the openings with only the clearance necessary for proper operation under self-closing or automatic closing and shall be without undercuts, louvers or grilles. Rabbits or astragals are required at the meeting edges of double egress doors, and stops are required on the head and jambs of all doors in smoke barriers. Positive latching devices are not required on double egress corridor doors, and center mullions are prohibited.

i. Exception to (a)2 above: Protection at the meeting edges of doors and stops at the head and sides of door

frames may be omitted in buildings equipped with an approved engineered smoke control system. The engineered smoke control system shall respond automatically, preventing the transfer of smoke across the barrier.

3. Doors in smoke barriers shall be self-closing or shall be provided with approved door hold-open devices of the fail-safe type which shall release the doors causing them to close upon the actuation of smoke detectors as well as upon the application of a maximum manual pull of 50 pounds against the hold-open device.

4. An approved damper designed to resist the passage of smoke shall be provided at each point a duct penetrates a smoke barrier. The damper shall close upon detection of smoke by an approved smoke detector located within the duct.

i. In lieu of an approved smoke detector located within the duct, ducts which penetrate smoke barriers above doors are permitted to have the approved damper arranged to close upon detection of smoke by the local device designed to detect smoke on either side of the smoke barrier door opening.

ii. Dampers are not required in buildings equipped with an approved engineered smoke control system.

iii. Dampers are not required where the openings in ducts are limited to a single smoke compartment and the ducts are of steel construction.

(b) In buildings of Use Group I-2, every story used for sleeping purposes for more than 30 occupants and stories which are usable but unoccupied shall be divided into not less than two compartments by smoke barrier walls such that each compartment does not exceed 22,500 square feet and no more than 150 feet in length and width.

Amended by R.1987 d.247, effective June 15, 1987.  
See: 18 N.J.R. 1225(a), 19 N.J.R. 1078(a).

**5:70-4.16 Amusement buildings**

(a) All buildings or portions thereof, of Use Group A-3 which are designed to disorient the occupant, reduce vision, present barriers or otherwise impede the flow of traffic, shall conform to all other applicable provisions of this Code and the following:

1. Every such amusement facility shall be equipped throughout with an automatic fire suppression system installed in accordance with the New Jersey Uniform Construction Code.

2. The interior finish of all walls and ceilings shall in no case be less than a Class II material in accordance with N.J.A.C. 5:70-4.12(b) and (c).

3. Every such amusement facility shall be equipped with exit signs installed in accordance with N.J.A.C. 5:70-4.11(k).

4. Every such amusement facility shall be equipped throughout with an approved automatic fire alarm system installed in accordance with the Uniform Construction Code and in accordance with (a)5 through (a)8 below.

5. The automatic alarm system shall activate a prerecorded message which can be clearly heard throughout the entire facility instructing the patrons to proceed to the nearest exit. Any alarm signals used in conjunction with the prerecorded message shall produce a signal which is distinctive from all sounds used in the normal operation of the amusement facility.

6. Every such amusement facility shall be equipped with emergency lighting equipment installed in accordance with the New Jersey Uniform Construction Code. The emergency lighting equipment shall automatically activate when:

- i. The fire suppression system is activated;
- ii. The fire alarm system is activated; or
- iii. Loss of the primary power supply occurs.

7. All audio and visual equipment such as horns, bells, flashing or otherwise distracting stimuli and mechanized displays shall cease operation upon initiation of an alarm by the automatic fire alarm system or upon activation of the automatic fire suppression system.

8. Activation of the automatic alarm system shall automatically shut down the air distribution system.

#### 5:70-4.17 High rise buildings

(a) In addition to all other applicable provisions of this code, high rise buildings shall conform to the provisions of this section.

(b) All high rise buildings of Use Groups M and R-1 shall be equipped throughout with an approved automatic fire suppression system installed in accordance with the New Jersey Uniform Construction Code.

(c) All high rise buildings of Use Groups B and R-1 shall be equipped with central control station and communication systems as follows:

1. An approved public address communication system consisting of loudspeakers on each floor of the building, in each elevator and elevator lobby and in each stair enclosure which shall be capable of being operated from the central control station;

2. A two-way fire department communication system which shall operate between the central control and every elevator, elevator lobby and entry to enclosed exit stairways;

3. A central control station for fire department operations shall be provided in a location approved by the fire department. It shall contain where applicable the public address system panel; the fire department communications panel; fire detection and alarm system annunciator panels; status indicators and controls for air handling systems; sprinkler valve and water flow detector display panels; and status indicators and a telephone for fire department use with controlled access to the public telephone system.

(d) In all high rise structures, each re-circulating air or exhaust system which serves more than one floor shall be equipped with approved smoke and heat detection devices in accordance with the Uniform Construction Code. The devices shall stop the fan(s) automatically and shall be of the manual reset type. Automatic fan shutdown is not required when the system is part of an approved smoke removal or smoke control system.

(e) Elevators in high rise structures shall be equipped with the following emergency control devices:

1. All automatic (non-designated attendant) elevators having a travel of 25 feet or more above or below the designated level shall be equipped with Phase 1 Emergency Recall Operation as required by ASME A17.1 Rules 211.3a and 211.3b listed in Appendix 3-A to N.J.A.C. 5:70-3;

2. Access to all floors shall be provided by at least one elevator equipped with Phase II Emergency In-Car Operation, as required by ASME A17.1, Rule 211.3c listed in Appendix 3-A to N.J.A.C. 5:70-3; and

3. All designated attendant elevators having a travel of 25 feet or more above or below the designated level shall be equipped with emergency controls, as required by ASME A17.1 Rule 211.4 listed in Appendix 3-A to N.J.A.C. 5:70-3.

(f) In all high rise buildings of Use Groups R-1 and R-2, smoke barriers conforming to N.J.A.C. 5:70-4.15(a) shall be provided around all elevator landings on every floor above the main floor level, with the following exceptions:

1. Such lobbies are not required in buildings provided with a complete automatic fire suppression system.

2. The smoke barrier shall be permitted to terminate at the ceiling, provided the ceiling membrane provides resistance to the passage of smoke equivalent to that provided by smoke barriers.

New Rule R.1987 d.247, effective June 15, 1987.

See: 18 N.J.R. 1225(a), 19 N.J.R. 1078(a).

Amended by R.1992 d.104, effective March 2, 1992.

See: 23 N.J.R. 3552(a), 24 N.J.R. 739(a).

Text at (e) deleted and replaced with text referencing ASME standards.

Amended by R.1993 d.197, effective May 3, 1993.

See: 25 N.J.R. 393(a), 25 N.J.R. 1868(a).

Added requirements for recall operation for automatic elevators at (e)1.

#### 5:70-4.18 Boiler/furnace equipment rooms

(a) Boiler/furnace equipment rooms shall be enclosed by one hour fire rated construction in the following facilities: day nurseries, children's shelter facilities, residential child care facilities and similar facilities with children below the age of 2½ years, and which are classified as Use Group I-2 in accordance with the Uniform Construction Code, shelter facilities, residences for the developmentally disabled, group homes, teaching family homes, transitional living homes, rooming and boarding houses, hotels and multiple dwellings.

1. Exception to (a) above: Furnace and boiler equipment of low pressure type (operating at pressures of 15 psig or less for steam equipment or 160 psig or less for hot water equipment) when installed in accordance with manufacturer recommendations or furnace and boiler equipment of residential (R-3) type (200,000 BTU per hour input rating or less) is not required to be enclosed.

(b) Emergency controls shall be provided in all structures classified as day nurseries, children's shelter facilities, residential child care facilities and similar facilities with children below the age of 2½ years, and which are classified as Use Group I-2 in accordance with the Uniform Construction Code and in group homes, teaching family homes, and supervised transitional living homes in accordance with the following:

1. Emergency shutoff switches for furnaces and boilers in basements must be at the top of the stairs leading to the basement;

2. Emergency shutoff switches for furnaces and boilers in other enclosed rooms must be located outside of the room.

Administrative correction to (a) and (b).  
See: 21 N.J.R. 3085(a).

#### 5:70-4.19 Smoke detectors for one and two-family dwellings

(a) In all Use Group R-3 dwellings subject to the requirements of N.J.A.C. 5:70-2.3, smoke detectors shall be installed as follows:

1. On each level of the premises; and
2. Outside of each separate sleeping area.

(b) The smoke detectors required in (a) above shall be located in accordance with NFPA 74 listed in N.J.A.C. 5:70-Appendix 3A, incorporated herein by reference, and maintained in working order.

1. The detectors shall not be required to be interconnected.

(c) Smoke detectors may be battery powered and shall be listed in accordance with ANSI/UL 217 listed in N.J.A.C. 5:70-Appendix 3A, incorporated herein by reference.

1. A/C-powered smoke detectors shall be accepted as meeting the requirements of this section.

New Rule, R.1992 d.11, effective January 6, 1992.  
See: 23 N.J.R. 3064(a), 24 N.J.R. 88(a).  
Amended by R.1993 d.197, effective May 3, 1993.  
See: 25 N.J.R. 393(a), 25 N.J.R. 1868(a).  
Added reference to Appendix 3A.  
Administrative change.  
27 N.J.R. 2387(a).  
Administrative change.  
See: 27 N.J.R. 2886(b).