

**N 15.3.4.4 Reserved.**

**N 15.3.4.5 Risk Analysis for Mass Notification Systems.** A risk analysis in accordance with Section 9.14 shall be performed to determine if a mass notification system is required upon replacement of the building fire alarm system.

**15.3.5 Extinguishment Requirements.**

**15.3.5.1** Where student occupancy exists below the level of exit discharge, every portion of such floor shall be protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.

**15.3.5.2** Where student occupancy does not exist on floors below the level of exit discharge, such floors shall be separated from the rest of the building by 1-hour fire resistance-rated construction or shall be protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.

**15.3.5.3** Automatic sprinkler protection shall not be required where student occupancy exists below the level of exit discharge, provided that both of the following criteria are met:

- (1) The approval of the authority having jurisdiction shall be required.
- (2) Windows for rescue and ventilation shall be provided in accordance with 15.2.11.1.

**15.3.5.4** Buildings with unprotected openings in accordance with 8.6.6 shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

**15.3.5.5** Where another provision of this chapter requires an automatic sprinkler system, the sprinkler system shall be installed in accordance with 9.7.1.1(1).

**15.3.6 Corridors.** Corridors shall be separated from other parts of the story by walls having a minimum ½-hour fire resistance rating in accordance with Section 8.3, unless otherwise permitted by one of the following:

- (1) Corridor protection shall not be required where all spaces normally subject to student occupancy have not less than one door opening directly to the outside or to an exterior exit access balcony or corridor in accordance with 7.5.3.
- (2)\* The following shall apply to buildings protected throughout by an approved automatic sprinkler system with valve supervision in accordance with Section 9.7:
  - (a) Corridor walls shall not be required to be rated, provided that such walls form smoke partitions in accordance with Section 8.4.
  - (b) The provisions of 8.4.3.5 shall not apply to normally occupied classrooms.
- (3) Where the corridor ceiling is an assembly having a minimum ½-hour fire resistance rating where tested as a wall, the corridor wall shall be permitted to terminate at the corridor ceiling.
- (4) Lavatories shall not be required to be separated from corridors, provided that they are separated from all other spaces by walls having a minimum ½-hour fire resistance rating in accordance with Section 8.3.
- (5) Lavatories shall not be required to be separated from corridors, provided that both of the following criteria are met:

- (a) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
- (b) The walls separating the lavatory from other rooms form smoke partitions in accordance with Section 8.4.

**15.3.7 Subdivision of Building Spaces.**

**15.3.7.1** Educational occupancies shall be subdivided into compartments by smoke partitions having not less than a 1-hour fire resistance rating and complying with Section 8.4 where one or both of the following conditions exist:

- (1) The maximum area of a compartment, including the aggregate area of all floors having a common atmosphere, exceeds 30,000 ft² (2800 m²).
- (2) The length or width of the building exceeds 300 ft (91 m).

**15.3.7.2** The requirement of 15.3.7.1 shall not apply to either of the following:

- (1) Where all classrooms have exterior exit access in accordance with 7.5.3
- (2) Buildings protected throughout by an approved automatic sprinkler system in accordance with Section 9.7

**15.3.7.3** The area of any smoke compartment required by 15.3.7.1 shall not exceed 30,000 ft² (2800 m²), with no dimension exceeding 300 ft (91 m).

**15.4 Special Provisions.**

**N 15.4.1** Educational occupancies shall comply with Chapter 11 where located in a special structure.

**15.4.2 Limited Access Buildings and Underground Buildings.** Limited access buildings and underground buildings shall comply with Section 11.7.

**15.4.3 High-Rise Buildings.** High-rise buildings shall comply with 11.8.3.1.

**15.4.4 Flexible Plan and Open Plan Buildings.**

**15.4.4.1** Flexible plan and open plan buildings shall comply with the requirements of this chapter as modified by 15.4.4.2 through 15.4.4.5.

**15.4.4.2** Each room occupied by more than 300 persons shall have two or more means of egress entering into separate atmospheres.

**15.4.4.3** Where three or more means of egress are required, the number of means of egress permitted to enter into the same atmosphere shall not exceed two.

**15.4.4.4** Flexible plan buildings shall be permitted to have walls and partitions rearranged periodically only if revised plans or diagrams have been approved by the authority having jurisdiction.

**15.4.4.5** Flexible plan buildings shall be evaluated while all folding walls are extended and in use as well as when they are in the retracted position.

**15.4.5 Alcohol-Based Hand-Rub Dispensers.** Alcohol-based hand-rub dispensers shall be protected in accordance with 8.7.3.1, unless all of the following requirements are met:

- (1) Dispensers shall be installed in rooms or spaces separated from corridors and exits.
- (2) The maximum individual dispenser fluid capacity shall be as follows:
  - (a) 0.32 gal (1.2 L) for dispensers in rooms
  - (b) 0.53 gal (2.0 L) for dispensers in suites of rooms
- (3) The dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).
- (4) Storage of quantities greater than 5 gal (18.9 L) in a single fire compartment shall meet the requirements of NFPA 30.
- (5) The dispensers shall not be installed over or directly adjacent to an ignition source.
- (6) Dispensers installed directly over carpeted floors shall be permitted only in sprinklered rooms or spaces.

### 15.5 Building Services.

**15.5.1 Utilities.** Utilities shall comply with the provisions of Section 9.1.

### 15.5.2 Heating, Ventilating, and Air-Conditioning Equipment.

**15.5.2.1** Heating, ventilating, and air-conditioning equipment shall comply with the provisions of Section 9.2.

**15.5.2.2** Unvented fuel-fired heating equipment, other than gas space heaters in compliance with NFPA 54 shall be prohibited.

**15.5.3 Elevators, Escalators, and Conveyors.** Elevators, escalators, and conveyors shall comply with the provisions of Section 9.4.

**15.5.4 Waste Chutes, Incinerators, and Laundry Chutes.** Waste chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5.

### 15.6 Reserved.

### 15.7 Operating Features.

**15.7.1 Emergency Action Plans.** Emergency action plans shall be provided in accordance with Section 4.8.

### 15.7.2 Emergency Egress Drills.

**15.7.2.1\*** Emergency egress drills shall be conducted in accordance with Section 4.7 and the applicable provisions of 15.7.2.3 as otherwise provided by 15.7.2.2.

**15.7.2.2** Approved training programs designed for education and training and for the practice of emergency egress to familiarize occupants with the drill procedure, and to establish conduct of the emergency egress as a matter of routine, shall be permitted to receive credit on a one-for-one basis for not more than four of the emergency egress drills required by 15.7.2.3, provided that a minimum of four emergency egress drills are completed prior to the conduct of the first such training and practice program.

**15.7.2.3** Emergency egress drills shall be conducted as follows:

- (1) Not less than one emergency egress drill shall be conducted every month the facility is in session, unless both of the following criteria are met:
  - (a) In climates where the weather is severe, the monthly emergency egress drills shall be permitted to be deferred.

- (b) The required number of emergency egress drills shall be conducted, and not less than four shall be conducted before the drills are deferred.

- (2) All occupants of the building shall participate in the drill.
- (3) One additional emergency egress drill, other than for educational occupancies that are open on a year-round basis, shall be required within the first 30 days of operation.

**15.7.2.4\*** Where permitted by the authority having jurisdiction, up to two of the emergency egress drills required by 15.7.2.3 shall be permitted to consist of alternative emergency drills for one or both of the following:

- (1) Targeted violence events
- (2) Natural hazard events

**15.7.2.5** All emergency drill alarms shall be sounded on the fire alarm system.

### 15.7.3 Inspection.

**15.7.3.1\*** It shall be the duty of principals, teachers, or staff to inspect all exit facilities daily to ensure that all stairways, doors, and other exits are in proper condition.

**15.7.3.2** Open plan buildings shall require extra surveillance to ensure that exit paths are maintained clear of obstruction and are obvious.

**15.7.3.3 Inspection of Door Openings.** Door openings shall be inspected in accordance with 7.2.1.14.

### 15.7.4 Furnishings and Decorations.

**15.7.4.1** Draperies, curtains, and other similar furnishings and decorations in educational occupancies shall be in accordance with the provisions of 10.3.1.

**15.7.4.2** Clothing and personal effects shall not be stored in corridors, unless otherwise permitted by one of the following:

- (1) This requirement shall not apply to corridors protected by an automatic sprinkler system in accordance with Section 9.7.
- (2) This requirement shall not apply to corridor areas protected by a smoke detection system in accordance with Section 9.6.
- (3) This requirement shall not apply to storage in metal lockers, provided that the required egress width is maintained.

**15.7.4.3** Artwork and teaching materials shall be permitted to be attached directly to the walls in accordance with the following:

- (1) The artwork and teaching materials shall not exceed 20 percent of the wall area in a building that is not protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.
- (2) The artwork and teaching materials shall not exceed 50 percent of the wall area in a building that is protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.

**15.7.5 Open Flames.** Approved open flames shall be permitted in laboratories and vocational/technical areas.

### 15.7.6 Integrated Fire Protection and Life Safety Systems.

**15.7.6.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.

**15.7.6.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

## Chapter 16 New Day-Care Occupancies

### 16.1 General Requirements.

#### 16.1.1\* Application.

**16.1.1.1** The requirements of this chapter shall apply to new buildings or portions thereof used as day-care occupancies. (See 1.3.1.)

**16.1.1.2 Administration.** The provisions of Chapter 1, Administration, shall apply.

**16.1.1.3 General.** The provisions of Chapter 4, General, shall apply.

**16.1.1.4** The requirements of Sections 16.1 through 16.5 and Section 16.7 shall apply to day-care occupancies in which more than 12 clients receive care, maintenance, and supervision by other than their relative(s) or legal guardian(s) for less than 24 hours per day.

**16.1.1.5** The requirements of Section 16.1 and Sections 16.4 through 16.7 shall apply to day-care homes as defined in 16.1.4.

**16.1.1.6** Where a facility houses more than one age group or self-preservation capability, the strictest requirements applicable to any group present shall apply throughout the day-care occupancy or building, as appropriate to a given area, unless the area housing such a group is maintained as a separate fire area.

**16.1.1.7\*** Rooms or spaces used for temporary child care, during short-term activities of the child's relative or guardian within the same building, shall not be required to meet the provisions of this chapter.

**16.1.1.8 Multiple-Level Buildings.** For purposes of applying requirements of this chapter that utilize the term *level of exit discharge*, including determination of stories in height as addressed in 4.6.3, the level of exit discharge shall be permitted to be the combination of floor levels as addressed in 16.1.1.8.1, 16.1.1.8.2, or 16.1.1.8.3.

**16.1.1.8.1** One floor level located not more than eight stair risers above the level of exit discharge shall be permitted to be considered part of the level of exit discharge.

**16.1.1.8.2** One floor level located not more than eight stair risers below the level of exit discharge shall be permitted to be considered part of the level of exit discharge.

**16.1.1.8.3** Where one floor level is located above the level of exit discharge, another floor level is located below the level of exit discharge, and not more than a total of eight stair risers separate the upper level from the lower level, the two floor levels shall be permitted to be considered part of the level of exit discharge.

**16.1.1.8.4** The provisions of 16.1.1.8.1, 16.1.1.8.2, and 16.1.1.8.3 shall not be used in combination with each other.

**16.1.1.9** Where construction, alteration, or demolition operations are conducted, the provisions of 4.6.10.2 shall apply.

**16.1.2 Classification of Occupancy.** See 6.1.4.

**16.1.2.1 General.** Occupancies that include preschools, kindergartens, and other schools whose purpose is primarily educational for children 30 months of age or older, even though the children who attend such schools are of preschool age, shall comply with the provisions of Chapter 14.

#### 16.1.2.2 Adult Day-Care Occupancies.

**16.1.2.2.1** Adult day-care occupancies shall include any building or portion thereof used for less than 24 hours per day to house more than three adults requiring care, maintenance, and supervision by other than their relative(s).

**16.1.2.2.2** Clients in adult day-care occupancies shall be ambulatory or semiambulatory and shall not be bedridden.

**16.1.2.2.3** Clients in adult day-care occupancies shall not exhibit behavior that is harmful to themselves or to others.

**16.1.2.3\* Conversions.** A conversion from a day-care home to a day-care occupancy with more than 12 clients shall be permitted only if the day-care occupancy conforms to the requirements of this chapter for new day-care occupancies with more than 12 clients.

#### 16.1.3 Multiple Occupancies.

**16.1.3.1 General.** Multiple occupancies shall be in accordance with 6.1.14.

**16.1.3.2 Atrium Walls Used in an Occupancy Separation.** Atrium walls in accordance with 6.1.14.4.6 shall be permitted to serve as part of the separation required by 6.1.14.4.1 for creating separated occupancies on a story-by-story basis in other than high-hazard industrial and high-hazard storage occupancies.

**16.1.3.3 Day-Care Occupancies in Apartment Buildings.** If the two exit accesses from a day-care occupancy enter the same corridor as an apartment occupancy, the exit accesses shall be separated in the corridor by a smoke partition complying with both of the following:

- (1) It shall have not less than a 1-hour fire resistance rating and shall be constructed in accordance with Section 8.4.
- (2) It shall be located so that it has an exit on each side.

#### 16.1.4 Definitions.

**16.1.4.1 General.** For definitions, see Chapter 3, Definitions.

**16.1.4.2 Special Definitions.** A list of special terms used in this chapter follows:

- (1) **Day-Care Home.** See 3.3.150.1.
- (2) **Flexible Plan and Open Plan Educational or Day-Care Building.** See 3.3.37.6.
- (3) **Self-Preservation (Day-Care Occupancy).** See 3.3.254.
- (4) **Separate Atmosphere.** See 3.3.27.2.

**16.1.5 Classification of Hazard of Contents.** The contents of day-care occupancies shall be classified as ordinary hazard in accordance with Section 6.2.

#### 16.1.6 Location and Minimum Construction Requirements.

**16.1.6.1** Day-care occupancies, other than day-care homes, shall be limited to the building construction types specified in Table 16.1.6.1 based on the number of stories in height as defined in 4.6.3. (See 8.2.1.)

**Table 16.1.6.1 Construction Type Limitations**

Construction Type	Sprinklered <sup>b</sup>	Stories in Height <sup>a</sup>					
		One Story Below <sup>c</sup>	1	2	3–4	>4 but Not High-Rise	High-Rise
I (442)	Yes	X	X	X	X	X	X
	No	NP	X	X	X	NP	NP
I (332)	Yes	X	X	X	X	X	X
	No	NP	X	X	X	NP	NP
II (222)	Yes	X	X	X	X	X	X
	No	NP	X	X	X	NP	NP
II (111)	Yes	X	X	X	X	X	NP
	No	NP	X	NP	NP	NP	NP
II (000)	Yes	X	X	X	X	NP	NP
	No	NP	X	NP	NP	NP	NP
III (211)	Yes	X	X	X	X	NP	NP
	No	NP	X	NP	NP	NP	NP
III (200)	Yes	NP	X	X	NP	NP	NP
	No	NP	X	NP	NP	NP	NP
IV (2HH)	Yes	X	X	X	NP	NP	NP
	No	NP	X	NP	NP	NP	NP
V (111)	Yes	X	X	X	X	NP	NP
	No	NP	X	NP	NP	NP	NP
V (000)	Yes	NP	X	X	NP	NP	NP
	No	NP	X	NP	NP	NP	NP

X: Permitted. NP: Not Permitted.

<sup>a</sup>See 4.6.3.

<sup>b</sup>Sprinklered throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7. (See 16.3.5.)

<sup>c</sup>One story below the level of exit discharge.

**16.1.6.2** Where day-care occupancies, other than day-care homes, with clients who are 30 months or younger in age, or who are incapable of self-preservation, are located one or more stories above the level of exit discharge, or where day-care occupancies are located two or more stories above the level of exit discharge, smoke partitions shall be provided to divide such stories into not less than two compartments. The smoke partitions shall be constructed in accordance with Section 8.4 but shall not be required to have a fire-resistance rating.

### 16.1.7 Occupant Load.

**16.1.7.1** The occupant load, in number of persons for whom means of egress and other provisions are required, either shall be determined on the basis of the occupant load factors of Table 7.3.1.2 that are characteristic of the use of the space or shall be determined as the maximum probable population of the space under consideration, whichever is greater.

**16.1.7.2** Where the occupant load is determined as the maximum probable population of the space in accordance with 16.1.7.1, an approved aisle, seating, and exiting diagram shall be required by the authority having jurisdiction to substantiate such a modification.

## 16.2 Means of Egress Requirements.

**16.2.1 General.** Means of egress shall be in accordance with Chapter 7 and Section 16.2.

**16.2.1.1** Where bathtubs, bathtub-shower combinations, or showers are present, grab bars shall be provided in accordance with the provisions of 24.2.8.

### 16.2.2 Means of Egress Components.

**16.2.2.1 Components Permitted.** Components of means of egress shall be limited to the types described in 16.2.2.2 through 16.2.2.10.

#### 16.2.2.2 Doors.

**16.2.2.2.1 General.** Doors complying with 7.2.1 shall be permitted.

**16.2.2.2.2 Panic Hardware or Fire Exit Hardware.** Any door in a required means of egress from an area having an occupant load of 100 or more persons shall be permitted to be provided with a latch or lock only if the latch or lock is panic hardware or fire exit hardware complying with 7.2.1.7.

#### 16.2.2.2.3 Special Locking Arrangements.

**16.2.2.2.3.1** Delayed-egress electrical locking systems complying with 7.2.1.6.1 shall be permitted.

**16.2.2.2.3.2** Sensor-release of electrical locking systems complying with 7.2.1.6.2 shall be permitted.

**16.2.2.2.3.3** Elevator lobby exit access door assemblies locking in accordance with 7.2.1.6.4 shall be permitted.



**16.2.2.2.4\* Door Latches.** Every door latch to closets, storage areas, kitchens, and other similar spaces or areas shall be such that clients can open the door from inside the space or area.

**16.2.2.2.5 Bathroom Doors.** Every bathroom door lock shall be designed to allow opening of the locked door from the outside by an opening device that shall be readily accessible to the staff.

**16.2.2.2.6 Locking of Classroom Doors and Doors to Other Client Care Spaces.** Classroom doors and doors to other client care spaces shall be permitted to be locked to prevent unwanted entry provided that the locking means is approved and all of the following conditions are met:

- (1) The locking means shall be capable of being engaged from the egress side without opening the door.
- (2) The unlocking and unlatching from the egress side of the door shall be accomplished without the use of a key, tool, or special knowledge or effort.
- (3) The releasing mechanism shall open the door leaf with not more than one releasing motion.
- (4) The releasing mechanism for unlocking and unlatching shall be located at a height not less than 34 in. (865 mm) and not exceeding 48 in. (1220 mm) above the finished floor.
- (5) Locks, if remotely engaged, shall be unlockable from the egress side of the door without the use of a key, tool, or special knowledge or effort.
- (6) The door shall be capable of being unlocked and opened from outside the room with the necessary key or other credential.
- (7) The locking means shall not modify the door closer, panic hardware, or fire exit hardware or impair their operation.
- (8) Modifications to fire door assemblies, including door hardware, shall be in accordance with NFPA 80.
- (9) The emergency action plan, required by 16.7.1, shall address the use of the locking and unlocking means from both sides of the door.
- (10) Staff shall be drilled in the engagement and release of the locking means, from both sides of the door, as part of the emergency egress drills required by 16.7.2.

**16.2.2.3\* Stairs.** Stairs complying with 7.2.2 shall be permitted.

**16.2.2.4 Smokeproof Enclosures.** Smokeproof enclosures complying with 7.2.3 shall be permitted.

**16.2.2.5 Horizontal Exits.** Horizontal exits complying with 7.2.4 shall be permitted.

**16.2.2.6 Ramps.** Ramps complying with 7.2.5 shall be permitted.

**16.2.2.7 Exit Passageways.** Exit passageways complying with 7.2.6 shall be permitted.

**16.2.2.8 Fire Escape Ladders.** Fire escape ladders complying with 7.2.9 shall be permitted.

**16.2.2.9 Alternating Tread Devices.** Alternating tread devices complying with 7.2.11 shall be permitted.

**16.2.2.10 Areas of Refuge.** Areas of refuge complying with 7.2.12 shall be permitted.

**16.2.3 Capacity of Means of Egress.** Capacity of means of egress shall be in accordance with Section 7.3.

## 16.2.4 Number of Means of Egress.

**16.2.4.1** The number of means of egress shall be in accordance with Section 7.4.

**16.2.4.2** Not less than two separate exits shall be in accordance with both of the following criteria:

- (1) They shall be provided on every story.
- (2) They shall be accessible from every part of every story and mezzanine; however, exit access travel shall be permitted to be common for the distance permitted as common path of travel by 16.2.5.2.

### 16.2.4.3 Reserved.

**16.2.5 Arrangement of Means of Egress.** See also 16.1.6.2.

**16.2.5.1** Means of egress shall be arranged in accordance with Section 7.5.

**16.2.5.2** Limitations on common path of travel shall be in accordance with 16.2.5.2.1 and 16.2.5.2.2.

**16.2.5.2.1** 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 Section 9.7.

**16.2.5.2.2** Common path of travel shall not exceed 75 ft (23 m) in a building not protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

**16.2.5.3** No dead-end corridor shall exceed 20 ft (6100 mm), other than in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7, in which case dead-end corridors shall not exceed 50 ft (15 m).

## 16.2.6 Travel Distance to Exits.

**16.2.6.1** Travel distance shall be measured in accordance with Section 7.6.

**16.2.6.2** Travel distance shall meet all of the following criteria, unless otherwise permitted by 16.2.6.3:

- (1) The travel distance between any room door intended as an exit access and an exit shall not exceed 100 ft (30 m).
- (2) The travel distance between any point in a room and an exit shall not exceed 150 ft (46 m).
- (3) The travel distance between any point in a sleeping room and an exit access door in that room shall not exceed 50 ft (15 m).

**16.2.6.3** The travel distance required by 16.2.6.2(1) and (2) shall be permitted to be increased by 50 ft (15 m) in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

**16.2.7 Discharge from Exits.** Discharge from exits shall be arranged in accordance with Section 7.7.

**16.2.8 Illumination of Means of Egress.** Means of egress shall be illuminated in accordance with Section 7.8.

**16.2.9 Emergency Lighting.** Emergency lighting shall be provided in accordance with Section 7.9 in the following areas:

- (1) Interior stairs and corridors
- (2) Assembly use spaces
- (3) Flexible and open plan buildings

- (4) Interior or limited access portions of buildings
- (5) Shops and laboratories

**16.2.10 Marking of Means of Egress.** Means of egress shall have signs in accordance with Section 7.10.

### **16.2.11 Special Means of Egress Features.**

#### **16.2.11.1 Windows for Rescue.**

**16.2.11.1.1** Every room or space normally subject to client occupancy, other than bathrooms, shall have not less than one outside window for emergency rescue that complies with all of the following, unless otherwise permitted by 16.2.11.1.2:

- (1) Such windows shall be openable from the inside without the use of tools and shall provide a clear opening of not less than 20 in. (510 mm) in width, 24 in. (610 mm) in height, and 5.7 ft<sup>2</sup> (0.5 m<sup>2</sup>) in area.
- (2) The bottom of the opening shall be not more than 44 in. (1120 mm) above the floor.
- (3) The clear opening shall allow a rectangular solid, with a width and height that provides not less than the required 5.7 ft<sup>2</sup> (0.5 m<sup>2</sup>) opening and a depth of not less than 20 in. (510 mm), to pass fully through the opening.

**16.2.11.1.2** The requirements of 16.2.11.1.1 shall not apply to either of the following:

- (1) Buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7
- (2) Where the room or space has a door leading directly to an exit or directly to the outside of the building

**16.2.11.2 Lockups.** Lockups in day-care occupancies shall comply with the requirements of 22.4.6.

**16.2.11.3 Hazardous Materials.** Where hazardous materials are present, the provisions of 7.12.2 shall apply.

### **16.3 Protection.**

**16.3.1 Protection of Vertical Openings.** Any vertical opening, other than unprotected vertical openings in accordance with 8.6.9.1 and 8.6.9.2, shall be enclosed or protected in accordance with Section 8.6.

#### **16.3.2 Protection from Hazards.**

**16.3.2.1** Rooms or spaces for the storage, processing, or use of materials specified in 16.3.2.1(1) through (3) shall be protected in accordance with the following:

- (1) Separation from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating, or protection of such rooms by automatic extinguishing systems as specified in Section 8.7, in the following areas:
  - (a) Boiler and furnace rooms, unless such rooms enclose only air-handling equipment
  - (b) Rooms or spaces used for the storage of combustible supplies in quantities deemed hazardous by the authority having jurisdiction
  - (c) Rooms or spaces used for the storage of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards
  - (d) Janitor closets
- (2) Separation from the remainder of the building by fire barriers having a minimum 1-hour fire resistance rating

and protection of such rooms by automatic extinguishing systems as specified in Section 8.7 in the following areas:

- (a)\* Laundries
- (b) Maintenance shops, including woodworking and painting areas
- (c) Rooms or spaces used for processing or use of combustible supplies deemed hazardous by the authority having jurisdiction
- (d) Rooms or spaces used for processing or use of hazardous materials or flammable or combustible liquids in quantities deemed hazardous by recognized standards
- (3) Where automatic extinguishing is used to meet the requirements of 16.3.2.1(1) and (2), protection as permitted in accordance with 9.7.1.2

**16.3.2.2** Janitor closets protected in accordance with 16.3.2.1(1)(d) shall be permitted to have doors fitted with ventilating louvers where the space is protected by automatic sprinklers.

**16.3.2.3** Cooking facilities shall be protected in accordance with 9.2.3, unless otherwise permitted by 16.3.2.4 or 16.3.2.5.

**16.3.2.4** Openings shall not be required to be protected between food preparation areas and dining areas.

**16.3.2.5** Approved domestic cooking equipment used for food warming or limited cooking shall not be required to be protected.

**16.3.2.6 Hazardous Materials.** Where hazardous materials are stored or handled, the provisions of 8.7.3.1 shall apply.

#### **16.3.3 Interior Finish.**

**16.3.3.1 General.** Interior finish shall be in accordance with Section 10.2.

**16.3.3.2 Interior Wall and Ceiling Finish.** Interior wall and ceiling finish materials complying with Section 10.2 shall be Class A in stairways, corridors, and lobbies; in all other occupied areas, interior wall and ceiling finish shall be Class A or Class B.

#### **16.3.3.3 Interior Floor Finish.**

**16.3.3.3.1** Interior floor finish shall comply with Section 10.2.

**16.3.3.3.2** Interior floor finish in exit enclosures and exit access corridors and spaces not separated from them by walls complying with 14.3.6 shall be not less than Class II.

**16.3.3.3.3** Interior floor finish shall comply with 10.2.7.1 or 10.2.7.2, as applicable.

#### **16.3.4 Detection, Alarm, and Communications Systems.**

**16.3.4.1 General.** Day-care occupancies, other than day-care occupancies housed in one room having at least one door opening directly to the outside at grade plane or to an exterior exit access balcony in accordance with 7.5.3, shall be provided with a fire alarm system in accordance with Section 9.6.

**16.3.4.2 Initiation.** Initiation of the required fire alarm system shall be by manual means and by operation of any required smoke detectors and required sprinkler systems. (See 16.3.4.5.)

**16.3.4.3 Occupant Notification.**

**16.3.4.3.1** Occupant notification shall be in accordance with 9.6.3.

**16.3.4.3.2** Positive alarm sequence shall be permitted in accordance with 9.6.3.5.

**16.3.4.3.3** Private operating mode in accordance with 9.6.3.7.3 shall be permitted.

**16.3.4.4 Emergency Forces Notification.** Emergency forces notification shall be accomplished in accordance with 9.6.4.

**16.3.4.5 Detection.** A smoke detection system in accordance with Section 9.6 shall be installed in day-care occupancies, other than those housed in one room having at least one door opening directly to the outside at grade plane or to an exterior exit access balcony in accordance with 7.5.3, and such system shall comply with both of the following:

- (1) Detectors shall be installed on each story in front of the doors to the stairways and in the corridors of all floors occupied by the day-care occupancy.
- (2) Detectors shall be installed in lounges, recreation areas, and sleeping rooms in the day-care occupancy.

**16.3.5 Extinguishment Requirements.**

**16.3.5.1** All new day care occupancies shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

**16.3.5.2** Required sprinkler systems shall be installed in accordance with 9.7.1.1(1) and supervised in accordance with 9.7.2.

**16.3.5.3** Buildings with unprotected openings in accordance with 8.6.6 shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

**N 16.3.5.4** Where required by 16.1.6, buildings containing a day care occupancy shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

**16.3.6 Corridors.** Every interior corridor shall be constructed of walls having not less than a 1-hour fire resistance rating in accordance with Section 8.3, unless otherwise permitted by any of the following:

- (1) Corridor protection shall not be required where all spaces normally subject to client occupancy have not less than one door opening directly to the outside or to an exterior exit access balcony or corridor in accordance with 7.5.3.
- (2) In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7, corridor walls shall not be required to be rated, provided that such walls form smoke partitions in accordance with Section 8.4.
- (3) Where the corridor ceiling is an assembly having a 1-hour fire resistance rating where tested as a wall, the corridor walls shall be permitted to terminate at the corridor ceiling.
- (4) Lavatories shall not be required to be separated from corridors, provided that they are separated from all other spaces by walls having not less than a 1-hour fire resistance rating in accordance with Section 8.3.

(5) Lavatories shall not be required to be separated from corridors, provided that both of the following criteria are met:

- (a) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
- (b) The walls separating the lavatory from other rooms form smoke partitions in accordance with Section 8.4.

**16.4 Special Provisions.**

**N 16.4.1** Day care occupancies shall comply with Chapter 11 where located in a special structure.

**16.4.2 Limited Access Buildings and Underground Buildings.** Limited access buildings and underground buildings shall comply with Section 11.7.

**16.4.3 High-Rise Buildings.** High-rise buildings that house day-care occupancies on floors more than 75 ft (23 m) above the lowest level of fire department vehicle access shall comply with Section 11.8.

**16.4.4 Flexible Plan and Open Plan Buildings.**

**16.4.4.1** Flexible plan and open plan buildings shall comply with the requirements of this chapter as modified by 16.4.4.2 through 16.4.4.5.

**16.4.4.2** Flexible plan buildings shall be permitted to have walls and partitions rearranged periodically only if revised plans or diagrams have been approved by the authority having jurisdiction.

**16.4.4.3** Flexible plan buildings shall be evaluated while all folding walls are extended and in use as well as when they are in the retracted position.

**16.4.4.4** Each room occupied by more than 300 persons shall have two or more means of egress entering into separate atmospheres.

**16.4.4.5** Where three or more means of egress are required from a single room, the number of means of egress permitted to enter into a common atmosphere shall not exceed two.

**16.4.5 Alcohol-Based Hand-Rub Dispensers.** Alcohol-based hand-rub dispensers shall be protected in accordance with 8.7.3.1, unless all of the following requirements are met:

- (1) Dispensers shall be installed in rooms or spaces separated from corridors and exits.
- (2) The maximum individual dispenser fluid capacity shall be as follows:
  - (a) 0.32 gal (1.2 L) for dispensers in rooms
  - (b) 0.53 gal (2.0 L) for dispensers in suites of rooms
- (3) The dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).
- (4) Storage of quantities greater than 5 gal (18.9 L) in a single fire compartment shall meet the requirements of NFPA 30.
- (5) The dispensers shall not be installed over or directly adjacent to an ignition source.
- (6) Dispensers installed directly over carpeted floors shall be permitted only in sprinklered rooms or spaces.

## 16.5 Building Services.

### 16.5.1 Utilities.

**16.5.1.1** Utilities shall comply with the provisions of Section 9.1.

**16.5.1.2** Special protective covers for all electrical receptacles shall be installed in all areas occupied by clients.

### 16.5.2 Heating, Ventilating, and Air-Conditioning Equipment.

**16.5.2.1** Heating, ventilating, and air-conditioning equipment shall be in accordance with Section 9.2.

**16.5.2.2** Unvented fuel-fired heating equipment, other than gas space heaters in compliance with NFPA 54 shall be prohibited.

**16.5.2.3** Any heating equipment in spaces occupied by clients shall be provided with partitions, screens, or other means to protect clients from hot surfaces and open flames; if solid partitions are used to provide such protection, provisions shall be made to ensure adequate air for combustion and ventilation for the heating equipment.

**16.5.3 Elevators, Escalators, and Conveyors.** Elevators, escalators, and conveyors, other than those in day-care homes, shall comply with the provisions of Section 9.4.

**16.5.4 Waste Chutes, Incinerators, and Laundry Chutes.** Waste chutes, incinerators, and laundry chutes, other than those in day-care homes, shall comply with the provisions of Section 9.5.

## 16.6 Day-Care Homes.

### 16.6.1 General Requirements.

#### 16.6.1.1 Application.

**16.6.1.1.1** The requirements of Section 16.6 shall apply to new buildings or portions thereof used as day-care homes. *(See 1.3.1.)*

**16.6.1.1.2** The requirements of Section 16.6 shall apply to day-care homes in which more than 3, but not more than 12, clients receive care, maintenance, and supervision by other than their relative(s) or legal guardian(s) for less than 24 hours per day, generally within a dwelling unit. *(See also 16.6.1.4.)*

**16.6.1.1.3** Where a facility houses more than one age group or one self-preservation capability, the strictest requirements applicable to any group present shall apply throughout the day-care home or building, as appropriate to a given area, unless the area housing such a group is maintained as a separate fire area.

**16.6.1.1.4** Facilities that supervise clients on a temporary basis with a parent or guardian in close proximity shall not be required to meet the provisions of Section 16.6.

**16.6.1.1.5** Places of religious worship shall not be required to meet the provisions of Section 16.6 where operating a day-care home while services are being held in the building.

**16.6.1.2 Multiple Occupancies.** See 16.1.3.

**16.6.1.3 Definitions.** See 16.1.4.

### 16.6.1.4 Classification of Occupancy.

**16.6.1.4.1 Subclassification of Day-Care Homes.** Subclassification of day-care homes shall comply with 16.6.1.4.1.1 and 16.6.1.4.1.2.

**16.6.1.4.1.1 Family Day-Care Home.** A family day-care home shall be a day-care home in which more than three, but fewer than seven, clients receive care, maintenance, and supervision by other than their relative(s) or legal guardian(s) for less than 24 hours per day, generally within a dwelling unit.

**16.6.1.4.1.2 Group Day-Care Home.** A group day-care home shall be a day-care home in which not less than 7, but not more than 12, clients receive care, maintenance, and supervision by other than their relative(s) or legal guardian(s) for less than 24 hours per day, generally within a dwelling unit.

**16.6.1.4.2\* Conversions.** A conversion from a day-care home to a day-care occupancy with more than 12 clients shall be permitted only if the day-care occupancy conforms to the requirements of Chapter 16 for new day-care occupancies with more than 12 clients.

**16.6.1.5 Classification of Hazard of Contents.** See 16.1.5.

**16.6.1.6 Location and Construction.** No day-care home shall be located more than one story below the level of exit discharge.

#### 16.6.1.7 Occupant Load.

**16.6.1.7.1** In family day-care homes, both of the following shall apply:

- (1) The minimum staff-to-client ratio shall be not less than one staff for up to six clients, including the caretaker's own children under age six.
- (2) There shall be not more than two clients incapable of self-preservation.

**16.6.1.7.2** In group day-care homes, all of the following shall apply:

- (1) The minimum staff-to-client ratio shall be not less than two staff for up to 12 clients.
- (2) There shall be not more than 3 clients incapable of self-preservation.
- (3) The staff-to-client ratio shall be permitted to be modified by the authority having jurisdiction where safeguards in addition to those specified by Section 16.6 are provided.

### 16.6.2 Means of Escape Requirements.

#### 16.6.2.1 General.

**16.6.2.1.1** Means of escape shall comply with Section 24.2.

**16.6.2.1.2** Where bathtubs, bathtub-shower combinations, or showers are present for client use, grab bars shall be provided in accordance with the provisions of 24.2.8.

#### 16.6.2.2 Reserved.

#### 16.6.2.3 Reserved.

#### 16.6.2.4 Number and Type of Means of Escape.

**16.6.2.4.1** The number and type of means of escape shall comply with Section 24.2 and 16.6.2.4.2 through 16.6.2.4.4.



**16.6.2.4.2** Every room used for sleeping, living, recreation, education, or dining purposes shall have the number and type of means of escape in accordance with Section 24.2.

**16.6.2.4.3** No room or space that is accessible only by a ladder or folding stairs or through a trap door shall be occupied by clients.

**16.6.2.4.4** In group day-care homes where spaces on the story above the level of exit discharge are used by clients, that story shall have not less than one means of escape complying with one of the following:

- (1) Door leading directly to the outside with access to finished ground level
- (2) Door leading directly to an outside stair to finished ground level
- (3) Interior stair leading directly to the outside with access to finished ground level separated from other stories by a ½-hour fire barrier in accordance with Section 8.3

**16.6.2.4.5** Where clients occupy a story below the level of exit discharge, that story shall have not less than one means of escape complying with one of the following:

- (1) Door leading directly to the outside with access to finished ground level
- (2) Door leading directly to an outside stair going to finished ground level
- (3) Bulkhead enclosure complying with 24.2.7
- (4) Interior stair leading directly to the outside with access to finished ground level, separated from other stories by a ½-hour fire barrier in accordance with Section 8.3

#### **16.6.2.5 Arrangement of Means of Escape.**

**16.6.2.5.1** A story used above or below the level of exit discharge shall be in accordance with 16.6.2.4.3 and 16.6.2.4.4.

**16.6.2.5.2** For group day-care homes, means of escape shall be arranged in accordance with Section 7.5.

**16.6.2.5.3** No dead-end corridors shall exceed 20 ft (6100 mm).

**16.6.2.5.4** Doors in means of escape shall be protected from obstructions, including snow and ice.

**16.6.2.6 Travel Distance.** Travel distance shall comply with 16.6.2.6.1 through 16.6.2.6.3.

**16.6.2.6.1** Travel distance shall be measured in accordance with Section 7.6.

**16.6.2.6.2** Travel distance shall meet all of the following criteria, unless otherwise permitted by 16.6.2.6.3:

- (1) The travel distance between any point in a room and a door leading directly to the outside with access to finished ground level shall not exceed 150 ft (46 m).
- (2) The travel distance between any point in a sleeping room and access to a means of escape from that room shall not exceed 50 ft (15 m).

**16.6.2.6.3** The travel distance required by 16.6.2.6.2(1) shall be permitted to be increased by 50 ft (15 m) in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

**16.6.2.7 Discharge from Exits.** See 16.6.2.4.

**16.6.2.8 Illumination of Means of Egress.** Means of egress shall be illuminated in accordance with Section 7.8.

**16.6.2.9 Emergency Lighting.** (Reserved)

**16.6.2.10 Marking of Means of Egress.** (Reserved)

#### **16.6.3 Protection.**

##### **16.6.3.1 Protection of Vertical Openings.**

**16.6.3.1.1** For group day-care homes, the doorway between the level of exit discharge and any story below shall be equipped with a fire door assembly having a 20-minute fire protection rating.

**16.6.3.1.2** For group day-care homes where the story above the level of exit discharge is used for sleeping purposes, there shall be a fire door assembly having a 20-minute fire protection rating at the top or bottom of each stairway.

##### **16.6.3.2 Protection from Hazards.**

**16.6.3.2.1** Reserved.

##### **16.6.3.3 Interior Finish.**

**16.6.3.3.1 General.** Interior finish shall be in accordance with Section 10.2.

##### **16.6.3.3.2 Interior Wall and Ceiling Finish.**

**16.6.3.3.2.1** In group day-care homes, interior wall and ceiling finish materials complying with Section 10.2 shall be Class A or Class B in corridors, hallways, stairways, foyers, and lobbies.

**16.6.3.3.2.2** In family day-care homes, the interior wall and ceiling finish materials complying with Section 10.2 shall be Class A or Class B in stairways.

**16.6.3.3.2.3** Interior wall and ceiling finish materials complying with Section 10.2 shall be Class A, Class B, or Class C in occupied spaces.

##### **16.6.3.3.3 Interior Floor Finish.**

**16.6.3.3.3.1** Interior floor finish shall comply with Section 10.2.

**16.6.3.3.3.2** Interior floor finish in stairways shall be not less than Class II.

**16.6.3.3.3.3** Interior floor finish shall comply with 10.2.7.1 or 10.2.7.2, as applicable.

#### **16.6.3.4 Detection, Alarm, and Communications Systems.**

**16.6.3.4.1** Smoke alarms shall be installed within day-care homes in accordance with 9.6.2.10.

**16.6.3.4.2** Where a day-care home is located within a building of another occupancy, such as in an apartment building or office building, any corridors serving the day-care home shall be provided with a smoke detection system in accordance with Section 9.6 except as otherwise provided in 16.6.3.4.3.

**16.6.3.4.3** The corridor smoke detection system addressed in 16.6.3.4.2 shall not be required where all of the following conditions are met:

- (1) The day-care home is in a building of another occupancy that is not required to have a fire alarm system by some other provision of this *Code*.

- (2) Smoke alarms are installed in accordance with 9.6.2.10 in the corridor serving the day-care home.
- (3) Smoke alarms are installed within the day-care home as required by 16.6.3.4.1.
- (4) Additional smoke alarms are installed within the day-care home within 15 ft (4.6 m) of all sleeping rooms.
- (5) The smoke alarms required by 16.6.3.4.3(2), (3), and (4) are interconnected, as required by NFPA 72, so that each sounds an alarm when any of these smoke alarms detects smoke.

**16.6.3.4.4** Single-station or multiple-station smoke alarms or smoke detectors shall be provided in all rooms used for sleeping in accordance with 9.6.2.10.

**16.6.3.4.5 Reserved.**

**16.6.3.4.6** Single-station or multiple-station carbon monoxide alarms or detectors shall be provided in accordance with Section 9.12 in day-care homes where client sleeping occurs and one or both of the following conditions exist:

- (1) Fuel-fired equipment is present.
- (2) An enclosed parking structure is attached to the day-care home.

**16.6.3.5 Extinguishment Requirements.** Any required sprinkler systems shall be in accordance with Section 9.7 and shall be installed in accordance with 9.7.1.1(1), (2), or (3), as appropriate with respect to the scope of the installation standard.

**16.6.4 Alcohol-Based Hand-Rub Dispensers.** Alcohol-based hand-rub dispensers shall be protected in accordance with 8.7.3.1, unless all of the following requirements are met:

- (1) Dispensers shall be installed in rooms or spaces separated from corridors, stairways, and exterior doors.
- (2) The maximum individual dispenser fluid capacity shall be as follows:
  - (a) 0.32 gal (1.2 L) for dispensers in rooms
  - (b) 0.53 gal (2.0 L) for dispensers in suites of rooms
- (3) The dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).
- (4) Storage of quantities greater than 5 gal (18.9 L) in a single fire compartment shall meet the requirements of NFPA 30.
- (5) The dispensers shall not be installed over or directly adjacent to an ignition source.
- (6) Dispensers installed directly over carpeted floors shall be permitted only in sprinklered rooms or spaces.

**16.7 Operating Features.**

**16.7.1\* Emergency Action Plans.** Emergency action plans shall be provided in accordance with Section 4.8.

**16.7.2 Emergency Egress and Relocation Drills.**

**16.7.2.1\*** Emergency egress and relocation drills shall be conducted in accordance with Section 4.7 and the applicable provisions of 16.7.2.2.

**16.7.2.2** Emergency egress and relocation drills shall be conducted as follows:

- (1) Not less than one emergency egress and relocation drill shall be conducted every month the facility is in session, unless both of the following criteria are met:

- (a) In climates where the weather is severe, the monthly emergency egress and relocation drills shall be permitted to be deferred.
  - (b) The required number of emergency egress and relocation drills shall be conducted, and not less than four shall be conducted before the drills are deferred.
- (2) The monthly frequency specified by 16.7.2.2(1) shall be permitted to be bimonthly in adult day-care centers.
- (3) All occupants of the building shall participate in the drill.
- (4) One additional emergency egress and relocation drill, other than for day-care occupancies that are open on a year-round basis, shall be required within the first 30 days of operation.

**16.7.3 Inspections.**

**16.7.3.1** Fire prevention inspections shall be conducted monthly by a trained senior member of the staff, after which a copy of the latest inspection report shall be posted in a conspicuous place in the day-care facility.

**16.7.3.2\*** It shall be the duty of site administrators and staff members to inspect all exit facilities daily to ensure that all stairways, doors, and other exits are in proper condition.

**16.7.3.3** Open plan buildings shall require extra surveillance to ensure that exit paths are maintained clear of obstruction and are obvious.

**16.7.3.4 Inspection of Door Openings.** Door openings shall be inspected in accordance with 7.2.1.14.

**16.7.4 Furnishings and Decorations.**

**16.7.4.1** Draperies, curtains, and other similar furnishings and decorations in day-care occupancies, other than in day-care homes, shall be in accordance with the provisions of 10.3.1.

**16.7.4.2** Clothing and personal effects shall not be stored in corridors, unless otherwise permitted by one of the following:

- (1) This requirement shall not apply to corridors protected by an automatic sprinkler system in accordance with Section 9.7.
- (2) This requirement shall not apply to corridor areas protected by a smoke detection system in accordance with Section 9.6.
- (3) This requirement shall not apply to storage in metal lockers, provided that the required egress width is maintained.

**16.7.4.3** Artwork and teaching materials shall be permitted to be attached directly to the walls in accordance with the following:

- (1) The artwork and teaching materials shall not exceed 20 percent of the wall area in a building that is not protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
- (2) The artwork and teaching materials shall not exceed 50 percent of the wall area in a building that is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

**16.7.4.4** The provision of 10.3.2 for cigarette ignition resistance of newly introduced upholstered furniture and mattresses shall not apply to day-care homes.