About This Document: This document is the Balloting Version of the First Draft of the proposed 2015 edition of NFPA 101. It has been compiled by NFPA staff for the purpose of balloting by the responsible Technical Committee(s) in accordance with the Regulations Governing the Development of NFPA Standards ("Regs."). This Balloting Version of the First Draft incorporates the changes made through First Revisions developed by the Technical Committee at its First Draft Meeting, and it is made available to Technical Committee members for their review during balloting. Only First Revisions that Pass the Technical Committee ballot will be included in the Final First Draft that will be published for public review. See, generally, Regs. at Section 4.3, Committee Activities: Input Stage.
Chapter 18  New Health Care Occupancies

18.1  General Requirements.
18.1.1  Application.
18.1.1.1  General.
18.1.1.1.1*  The requirements of this chapter shall apply to new buildings or portions thereof used as health care occupancies. *(See 1.3.1.)*
18.1.1.1.2  Administration. The provisions of Chapter 1, Administration, shall apply.
18.1.1.1.3  General. The provisions of Chapter 4, General, shall apply.
18.1.1.1.4  The requirements established by this chapter shall apply to the design of all new hospitals, nursing homes, and limited care facilities. The term *hospital*, wherever used in this *Code*, shall include general hospitals, psychiatric hospitals, and specialty hospitals. The term *nursing home*, wherever used in this *Code*, shall include nursing and convalescent homes, skilled nursing facilities, intermediate care facilities, and infirmaries in homes for the aged. Where requirements vary, the specific subclass of health care occupancy that shall apply is named in the paragraph pertaining thereto. The requirements established by Chapter 20 shall apply to all new ambulatory health care facilities. The operating feature requirements established by Section 18.7 shall apply to all health care occupancies.
18.1.1.1.5*  The health care facilities regulated by this chapter shall be those that provide sleeping accommodations for their occupants and are occupied by persons who are mostly incapable of self-preservation because of age, because of physical or mental disability, or because of security measures not under the occupants’ control.
18.1.1.1.6  Buildings, or sections of buildings, that primarily house patients who, in the opinion of the governing body of the facility and the governmental agency having jurisdiction, are capable of exercising judgment and appropriate physical action for self-preservation under emergency conditions shall be permitted to comply with chapters of this *Code* other than Chapter 18.
18.1.1.1.7*  It shall be recognized that, in buildings housing certain patients, it might be necessary to lock doors and bar windows to confine and protect building inhabitants.
18.1.1.1.8  Buildings, or sections of buildings, that house older persons and that provide activities that foster continued independence but that do not include services distinctive to health care occupancies *(see 18.1.4.2)*, as defined in 3.3.188.7, shall be permitted to comply with the requirements of other chapters of this *Code*, such as Chapters 30 or 32.
18.1.1.1.9  Facilities that do not provide housing on a 24-hour basis for their occupants shall be classified as other occupancies and shall be covered by other chapters of this *Code*.
18.1.1.1.10*  The requirements of this chapter shall apply based on the assumption that staff is available in all patient-occupied areas to perform certain fire safety functions as required in other paragraphs of this chapter.
18.1.1.2*  Goals and Objectives. The goals and objectives of Sections 4.1 and 4.2 shall be met with due consideration for functional requirements, which are accomplished by limiting the development
and spread of a fire emergency to the room of fire origin and reducing the need for occupant evacuation, except from the room of fire origin.

### 18.1.1.3 Total Concept.

#### 18.1.1.3.1 All health care facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants.

#### 18.1.1.3.2 Because the safety of health care occupants cannot be ensured adequately by dependence on evacuation of the building, their protection from fire shall be provided by appropriate arrangement of facilities; adequate, trained staff; and development of operating and maintenance procedures composed of the following:

1. Design, construction, and compartmentation
2. Provision for detection, alarm, and extinguishment
3. Fire prevention procedures and planning, training, and drilling programs for the isolation of fire, transfer of occupants to areas of refuge, or evacuation of the building

### 18.1.1.4 Additions, Conversions, Modernization, Renovation, and Construction Operations.

#### 18.1.1.4.1 Additions. Additions shall be separated from any existing structure not conforming to the provisions within Chapter 19 by a fire barrier having not less than a 2-hour fire resistance rating and constructed of materials as required for the addition. (See 4.6.7 and 4.6.11.)

#### 18.1.1.4.1.1 Communicating openings in dividing fire barriers required by 18.1.1.4.1 shall be permitted only in corridors and shall be protected by approved self-closing fire door assemblies. (See also Section 8.3.)

#### 18.1.1.4.1.2 Doors in barriers required by 18.1.1.4.1 shall normally be kept closed, unless otherwise permitted by 18.1.1.4.1.3.

#### 18.1.1.4.1.3 Doors shall be permitted to be held open if they meet the requirements of 18.2.2.2.7.

#### 18.1.1.4.2 Changes of Use or Occupancy Classification. Changes of use or occupancy classification shall comply with 4.6.11, unless otherwise permitted by one of the following:

1. A change from a hospital to a nursing home or from a nursing home to a hospital shall not be considered a change in occupancy classification or a change in use.
2. A change from a hospital or nursing home to a limited care facility shall not be considered a change in occupancy classification or a change in use.
3. A change from a hospital or nursing home to an ambulatory health care facility shall not be considered a change in occupancy classification or a change in use.

#### 18.1.1.4.3 Rehabilitation.

#### 18.1.1.4.3.1 For purposes of the provisions of this chapter, the following shall apply:

1. A major rehabilitation shall involve the modification of more than 50 percent, or more than 4500 ft² (420 m²), of the area of the smoke compartment.
2. A minor rehabilitation shall involve the modification of not more than 50 percent, and not more than 4500 ft² (420 m²), of the area of the smoke compartment.

#### 18.1.1.4.3.2 Work that is exclusively plumbing, mechanical, fire protection system, electrical, medical gas, or medical equipment work shall not be included in the computation of the modification area within the smoke compartment.

#### 18.1.1.4.3.3* Where major rehabilitation is done in a nonsprinklered smoke compartment, the automatic sprinkler requirements of 18.3.5 shall apply to the smoke compartment undergoing the rehabilitation, and, in cases where the building is not protected throughout by an approved automatic sprinkler system, the requirements of 18.4.3.2, 18.4.3.3, and 18.4.3.8 shall also apply.

#### 18.1.1.4.3.4* Where minor rehabilitation is done in a nonsprinklered smoke compartment, the requirements of 18.3.5.1 shall not apply, but, in such cases, the rehabilitation shall not reduce life safety below the level required for new buildings or below the level of the requirements of 18.4.3 for nonsprinklered smoke compartment rehabilitation. (See 4.6.7.)
18.1.1.4.4 Construction, Repair, and Improvement Operations. See 4.6.10.

18.1.2 Classification of Occupancy. See 6.1.5 and 18.1.4.2.

18.1.3 Multiple Occupancies.

18.1.3.1 Multiple occupancies shall be in accordance with 6.1.14.

18.1.3.2 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, provided both of the following are met:

(1) The provision is not used for occupancy separations involving industrial and storage occupancies.

(2) Smoke partitions serving as atrium walls are not permitted to serve as enclosures for hazardous areas.

18.1.3.3 Sections of health care facilities shall be permitted to be classified as other occupancies in accordance with the separated occupancies provisions of 6.1.14 and either 18.1.3.3-18.1.3.4 or 18.1.3.5.

18.1.3.4 Contiguous Non-Health Care Occupancies.

18.1.3.4.1 Ambulatory care facilities, medical clinics, and similar facilities that are contiguous to health care occupancies, but are primarily intended to provide outpatient services, shall be permitted to be classified as business occupancies or ambulatory health care facilities, provided that the facilities are separated from the health care occupancy by construction having a minimum 2-hour fire resistance rating, and the facility is not intended to provide services simultaneously for four or more inpatients who are incapable of self-preservation.

18.1.3.4.2 Ambulatory care facilities, medical clinics, and similar facilities that are contiguous to health care occupancies shall be permitted to be used for diagnostic and treatment services of inpatients who are capable of self-preservation.

18.1.3.5 Where separated occupancies provisions are used in accordance with either 18.1.3.3 or 18.1.3.4, the most stringent construction type shall be provided throughout the building, unless a 2-hour separation is provided in accordance with 8.2.1.3, in which case the construction type shall be determined as follows:

(1) The construction type and supporting construction of the health care occupancy shall be based on the story on which it is located in the building in accordance with the provisions of 18.1.6 and Table 18.1.6.1.

(2) The construction type of the areas of the building enclosing the other occupancies shall be based on the applicable occupancy chapters of this Code.

18.1.3.6 All means of egress from health care occupancies that traverse non-health care spaces shall conform to the requirements of this Code for health care occupancies, unless otherwise permitted by 18.1.3.7.

18.1.3.7 Exit through a horizontal exit into other contiguous occupancies that do not conform to health care egress provisions, but that do comply with requirements set forth in the appropriate occupancy chapter of this Code, shall be permitted, provided that both of the following criteria apply:

(1) The occupancy does not contain high hazard contents.

(2) The horizontal exit complies with the requirements of 18.2.2.5.
18.1.3.89 Egress provisions for areas of health care facilities that correspond to other occupancies shall meet the corresponding requirements of this Code for such occupancies, and, where the clinical needs of the occupant necessitate the locking of means of egress, staff shall be present for the supervised release of occupants during all times of use.

18.1.3.910 Auditoriums, chapels, staff residential areas, or other occupancies provided in connection with health care facilities shall have means of egress provided in accordance with other applicable sections of this Code.

18.1.3.1011 Any area with a hazard of contents classified higher than that of the health care occupancy and located in the same building shall be protected as required by 18.3.2.

18.1.3.1112 Non-health care–related occupancies classified as containing high hazard contents shall not be permitted in buildings housing health care occupancies.

18.1.4 Definitions.
18.1.4.1 General. For definitions, see Chapter 3, Definitions.

18.1.4.2 Special Definitions. The following is a list of special terms used in this chapter:

(1) Ambulatory Health Care Occupancy. See 3.3.188.1.

(2) Deep-fat Frying. A cooking method that involves fully immersing food in hot oil.

(3) Hospital. See 3.3.142.

(4) Limited Care Facility. See 3.3.88.2.

(5) Nursing Home. See 3.3.140.2.

18.1.5 Classification of Hazard of Contents. The classification of hazard of contents shall be as defined in Section 6.2.

18.1.6 Minimum Construction Requirements.
18.1.6.1 Health care occupancies shall be limited to the building construction types specified in Table 18.1.6.1, unless otherwise permitted by 18.1.6.2 through 18.1.6.7. See 8.2.1.

<table>
<thead>
<tr>
<th>Construction Type</th>
<th>Sprinklered†</th>
<th>Total Number of Stories of Building‡</th>
</tr>
</thead>
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<tr>
<td></td>
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<td>2</td>
</tr>
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<tr>
<td>III (211)</td>
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<td>X</td>
</tr>
</tbody>
</table>
The total number of stories of the building is required to be determined as follows:

1. The total number of stories is to be counted starting with the level of exit discharge and ending with the highest occupiable story of the building.
2. Stories below the level of exit discharge are not counted as stories.
3. Interstitial spaces used solely for building or process systems directly related to the level above or below are not considered a separate story.
4. A mezzanine in accordance with 8.6.9 is not counted as a story.

†Sprinklered throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7. (See 18.3.5.)

‡Basements are not counted as stories.

18.1.6.2 Any building of Type I(442), Type I(332), Type II(222), or Type II(111) construction shall be permitted to include roofing systems involving combustible supports, decking, or roofing, provided that all of the following criteria are met:

2. The roof shall be separated from all occupied portions of the building by a noncombustible floor assembly having not less than a 2-hour fire resistance rating that includes not less than 2½ in. (63 mm) of concrete or gypsum fill.
3. The structural elements supporting the 2-hour fire resistance–rated floor assembly specified in 18.1.6.2(2) shall be required to have only the fire resistance rating required of the building.

18.1.6.3 Any building of Type I(442), Type I(332), Type II(222), or Type II(111) construction shall be permitted to include roofing systems involving combustible supports, decking, or roofing, provided that all of the following criteria are met:

2. The roof/ceiling assembly shall be constructed with fire-retardant-treated wood meeting the requirements of NFPA 220, *Standard on Types of Building Construction*.
3. The roof/ceiling assembly shall have the required fire resistance rating for the type of construction.

18.1.6.4 Interior nonbearing walls in buildings of Type I or Type II construction shall be constructed of noncombustible or limited-combustible materials, unless otherwise permitted by 18.1.6.5.
18.1.6.5 Interior nonbearing walls required to have a minimum 2-hour fire resistance rating of 2-hours or less shall be permitted to be of fire-retardant-treated wood enclosed within noncombustible or limited-combustible materials, provided that such walls are not used as shaft enclosures.

18.1.6.6 Fire-retardant-treated wood that serves as supports for the installation of fixtures and equipment shall be permitted to be installed behind noncombustible or limited-combustible sheathing.

18.1.6.7 All buildings with more than one level below the level of exit discharge shall have all such lower levels separated from the level of exit discharge by not less than Type II(111) construction.

18.1.7 Occupant Load. 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.

18.2 Means of Egress Requirements.

18.2.1 General. Every aisle, passageway, corridor, exit discharge, exit location, and access shall be in accordance with Chapter 7, unless otherwise modified by 18.2.2 through 18.2.11.

18.2.2* Means of Egress Components.

18.2.2.1 Components Permitted. Components of means of egress shall be limited to the types described in 18.2.2.2 through 18.2.2.10.

18.2.2.2 Doors.

18.2.2.2.1 Doors complying with 7.2.1 shall be permitted.

18.2.2.2.2 Locks shall not be permitted on patient sleeping room doors, unless otherwise permitted by one of the following:

(1) Key-locking devices that restrict access to the room from the corridor and that are operable only by staff from the corridor side shall be permitted, provided that such devices do not restrict egress from the room.

(2) Locks complying with 18.2.2.2.5 shall be permitted.

18.2.2.2.3 Doors not located in a required means of egress shall be permitted to be subject to locking.

18.2.2.2.4 Doors within a required means of egress shall not be equipped with a latch or lock that requires the use of a tool or key from the egress side, unless otherwise permitted by one of the following:

(1) Locks complying with 18.2.2.2.5 shall be permitted.

(2)* Delayed-egress locks complying with 7.2.1.6.1 shall be permitted.

(3)* Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted.

(4) Elevator lobby exit access door locking in accordance with 7.2.1.6.3 shall be permitted.

18.2.2.2.5 Door-locking arrangements shall be permitted in accordance with either 18.2.2.2.5.1 or 18.2.2.2.5.2.

18.2.2.2.5.1* Door-locking arrangements shall be permitted where the clinical needs of patients require specialized security measures or where patients pose a security threat, provided that staff can readily unlock doors at all times in accordance with 18.2.2.2.6.

18.2.2.2.5.2* Door-locking arrangements shall be permitted where patient special needs require specialized protective measures for their safety, provided that all of the following criteria are met:

(1) Staff can readily unlock doors at all times in accordance with 18.2.2.2.6.

(2) A total (complete) smoke detection system is provided throughout the locked space in accordance with 9.6.2.9, or locked doors can be remotely unlocked at an approved, constantly attended location within the locked space.
The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 18.3.5.1.

The locks are electrical locks that fail safely so as to release upon loss of power to the device.

The locks release by independent activation of each of the following:
(a) Activation of the smoke detection system required by 18.2.2.2.5.2(2)
(b) Waterflow in the automatic sprinkler system required by 18.2.2.2.5.2(3)

18.2.2.2.6 Doors that are located in the means of egress and are permitted to be locked under other provisions of 18.2.2.2.5 shall comply with both of the following:
(1) Provisions shall be made for the rapid removal of occupants by means of one of the following:
   (a) Remote control of locks from within the locked smoke compartment
   (b) Keying of all locks to keys carried by staff at all times
   (c) Other such reliable means available to the staff at all times
   (2) Only one locking device shall be permitted on each door.

18.2.2.2.7* Doors permitted to be locked in accordance with 18.2.2.2.5.1 shall be permitted to have murals on the egress doors to disguise the doors provided all of the following are met:
(1) Staff can readily unlock the doors at all times in accordance with 18.2.2.2.6.
(2)* The door releasing hardware, where provided, is readily accessible for staff use.
(3)* Door leaves, windows and door hardware, other than door releasing hardware, shall be permitted to be covered by the murals.
(4) The murals shall not impair the operation of the doors.

18.2.2.2.78* Any door in an exit passageway, stairway enclosure, horizontal exit, smoke barrier, or hazardous area enclosure (except boiler rooms, heater rooms, and mechanical equipment rooms) shall be permitted to be held open only by an automatic release device that complies with 7.2.1.8.2. The automatic sprinkler system and the fire alarm system, and the systems required by 7.2.1.8.2, shall be arranged to initiate the closing action of all such doors throughout the smoke compartment or throughout the entire facility.

18.2.2.2.89 Where doors in a stair enclosure are held open by an automatic release device as permitted in 18.2.2.2.718.2.2.2.8, initiation of a door-closing action on any level shall cause all doors at all levels in the stair enclosure to close.

18.2.2.2.910 High-rise health care occupancies shall comply with the re-entry provisions of 7.2.1.5.8.

18.2.2.2.101 Horizontal-sliding doors shall be permitted in accordance with 18.2.2.101.1 or 18.2.2.101.2.

18.2.2.2.101.1 Horizontal-sliding doors Special-purpose horizontally sliding accordion or folding door assemblies, as permitted by 7.2.1.14, that are not automatic-closing shall be limited to a single leaf and shall have a latch or other mechanism that ensures that the doors will not rebound into a partially open position if forcefully closed.

18.2.2.2.101.2 Horizontal-sliding doors serving an occupant load of fewer than 10 shall be permitted, provided that all of the following criteria are met:
(1) The area served by the door has no high hazard contents.
(2) The door is readily operable from either side without special knowledge or effort.
(3) The force required to operate the door in the direction of door travel is not more than 30 lbf (133 N) to set the door in motion and is not more than 15 lbf (67 N) to close the door or open it to the minimum required width.

(4) The door assembly complies with any required fire protection rating and, where rated, is self-closing or automatic-closing by means of smoke detection in accordance with 7.2.1.8 and is installed in accordance with NFPA 80, *Standard for Fire Doors and Other Opening Protective.*

(5) Where corridor doors are required to latch, the doors are equipped with a latch or other mechanism that ensures that the doors will not rebound into a partially open position if forcefully closed.

**18.2.2.3 Stairs.** Stairs complying with 7.2.2 shall be permitted.

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

**18.2.2.5 Horizontal Exits.** Horizontal exits complying with 7.2.4 and the modifications of 18.2.2.5.1 through 18.2.2.5.7 shall be permitted.

**18.2.2.5.1** Accumulation space shall be provided in accordance with 18.2.2.5.1.1 and 18.2.2.5.1.2.

**18.2.2.5.1.1** Not less than 30 net ft² (2.8 net m²) per patient in a hospital or nursing home, or not less than 15 net ft² (1.4 net m²) per resident in a limited care facility, shall be provided within the aggregated area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other similar areas on each side of the horizontal exit.

**18.2.2.5.1.2** On stories not housing bedridden or litterborne patients, not less than 6 net ft² (0.56 net m²) per occupant shall be provided on each side of the horizontal exit for the total number of occupants in adjoining compartments.

**18.2.2.5.2** The total egress capacity of the other exits (stairs, ramps, doors leading outside the building) shall not be reduced below one-third of that required for the entire area of the building.

**18.2.2.5.3** A single door shall be permitted in a horizontal exit if all of the following conditions apply:

1. The exit serves one direction only.
2. Such door is a swinging door or a horizontal-sliding door special-purpose horizontally sliding accordion or folding door assembly complying with 7.2.1.14.
3. The door is not less than 41½ in. (1055 mm) in clear width.

**18.2.2.5.4** A horizontal exit involving a corridor 8 ft (2440 mm) or more in width and serving as a means of egress from both sides of the doorway shall have the opening protected by a pair of swinging doors arranged to swing in opposite directions from each other, with each door having a clear width of not less than 41½ in. (1055 mm), or by a horizontal-sliding door special-purpose horizontally sliding accordion or folding door assembly that complies with 7.2.1.14 and provides a clear width of not less than 6 ft 11 in. (2110 mm).

**18.2.2.5.5** A horizontal exit involving a corridor 6 ft (1830 mm) or more in width and serving as a means of egress from both sides of the doorway shall have the opening protected by a pair of swinging doors, arranged to swing in opposite directions from each other, with each door having a clear width of not less than 32 in. (810 mm), or by a horizontal-sliding door special-purpose horizontally sliding accordion or folding door assembly that complies with 7.2.1.14 and provides a clear width of not less than 64 in. (1625 mm).

**18.2.2.5.6** An approved vision panel shall be required in each horizontal exit door.

**18.2.2.5.7** Center mullions shall be prohibited in horizontal exit door openings.

**18.2.2.6 Ramps.**

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

**18.2.2.6.2** Ramps enclosed as exits shall be of sufficient width to provide egress capacity in accordance with 18.2.3.

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

**18.2.2.8 Fire Escape Ladders.** Fire escape ladders complying with 7.2.9 shall be permitted.
18.2.2.9 Alternating Tread Devices. Alternating tread devices complying with 7.2.11 shall be permitted.

18.2.2.10 Areas of Refuge. Areas of refuge used as part of a required accessible means of egress shall comply with 7.2.12.

18.2.3 Capacity of Means of Egress.
18.2.3.1 The capacity of means of egress shall be in accordance with Section 7.3.
18.2.3.2 Reserved.
18.2.3.3 Reserved.

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18.2.3.4* Aisles, corridors, and ramps required for exit access in a hospital or nursing home shall be not less than 8 ft (2440 mm) in clear and unobstructed width, unless otherwise permitted by one of the following:

1. Aisles, corridors, and ramps in adjunct areas not intended for the housing, treatment, or use of inpatients shall be not less than 44 in. (1120 mm) in clear and unobstructed width.
2. Noncontinuous projections not more than 6 in. (150 mm) from the corridor wall, positioned not less than 38 in. (965 mm) above the floor, shall be permitted.
3. Exit access within a room or suite of rooms complying with the requirements of 18.2.5 shall be permitted.

4. Projections into the required width shall be permitted for wheeled equipment, provided that all of the following conditions are met:
   a. The wheeled equipment does not reduce the clear unobstructed corridor width to less than 60 in. (1525 mm).
   b. The health care occupancy fire safety plan and training program address the relocation of the wheeled equipment during a fire or similar emergency.
   c. The wheeled equipment is limited to the following:
      i. Equipment in use and carts in use
      ii. Medical emergency equipment not in use
      iii. Patient lift and transport equipment

5. Where the corridor width is at least 8 ft (2440 mm), projections into the required width shall be permitted for fixed furniture, provided that all of the following conditions are met:
   a. The fixed furniture is securely attached to the floor or to the wall.
   b. The fixed furniture does not reduce the clear unobstructed corridor width to less than 6 ft (1830 mm), except as permitted by 18.2.3.4(2).
   c. The fixed furniture is located only on one side of the corridor.
   d. The fixed furniture is grouped such that each grouping does not exceed an area of 50 ft² (4.6 m²).
   e. The fixed furniture groupings addressed in 18.2.3.4(5)(d) are separated from each other by a distance of at least 10 ft (3050 mm).
   f. The fixed furniture is located so as to not obstruct access to building service and fire protection equipment.

6. Corridors throughout the smoke compartment are protected by an electrically supervised automatic smoke detection system in accordance with 18.3.4, or the fixed furniture spaces are arranged and located to allow direct supervision by the facility staff from a nurses’ station or similar space.

7. Cross-corridor door openings in corridors with a required minimum width of 8 ft (2440 mm) shall have a clear width of not less than 6 ft 11 in. (2110 mm) for pairs of doors or a clear width of not less than 41 ½ in. (1055 mm) for a single door.
(7) Nursing home corridors shall be permitted to be not less than 6 ft (1830 mm) wide in smoke compartments housing not more than 30 patients.

(8) Cross-corridor door openings in corridors with a required minimum width of 6 ft (1830 mm) shall have a clear width of not less than 64 in. (1625 mm) for pairs of doors or a clear width of not less than 32 in. (810 mm) for a single door.

18.2.3.5 Aisles, corridors, and ramps required for exit access in a limited care facility or hospital for psychiatric care shall be not less than 6 ft (1830 mm) in clear and unobstructed width, unless otherwise permitted by one of the following:

(1)* Aisles, corridors, and ramps in adjunct areas not intended for the housing, treatment, or use of inpatients shall be not less than 44 in. (1120 mm) in clear and unobstructed width.

(2)* Noncontinuous projections not more than 6 in. (150 mm) from the corridor wall, positioned not less than 38 in. (965 mm) above the floor, shall be permitted.

(3)* Exit access within a room or suite of rooms complying with the requirements of 18.2.5 shall be permitted.

(4) Projections into the required width shall be permitted for wheeled equipment, provided that all of the following conditions are met:

(a) The wheeled equipment does not reduce the clear unobstructed corridor width to less than 60 in. (1525 mm).

(b) The health care occupancy fire safety plan and training program address the relocation of the wheeled equipment during a fire or similar emergency.

(c)* The wheeled equipment is limited to the following:

i. Equipment in use and carts in use

ii. Medical emergency equipment not in use

iii. Patient lift and transport equipment

(5)* Cross-corridor door openings in corridors with a required minimum width of 6 ft (1830 mm) shall have a clear width of not less than 64 in. (1625 mm) for pairs of doors or a clear width of not less than 32 in. (810 mm) for a single door.

18.2.3.6 The minimum clear width for doors in the means of egress from sleeping rooms; diagnostic and treatment areas, such as x-ray, surgery, or physical therapy; and nursery rooms shall be as follows:

(1) Hospitals and nursing homes — 41½ in. (1055 mm)

(2) Psychiatric hospitals and limited care facilities — 32 in. (810 mm)

18.2.3.7 The requirements of 18.2.3.6 shall not apply where otherwise permitted by one of the following:

(1) Doors that are located so as not to be subject to use by any health care occupant shall be not less than 32 in. (810 mm) in clear width.

(2) Doors in exit stair enclosures shall be not less than 32 in. (810 mm) in clear width.

(3) Doors serving newborn nurseries shall be not less than 32 in. (810 mm) in clear width.

(4) Where a pair of doors is provided, all of the following criteria shall be met:

(a) Not less than one of the doors shall provide not less than a 32 in. (810 mm) clear width opening.

(b) A rabbet, bevel, or astragal shall be provided at the meeting edge.

(c) The inactive door leaf shall have an automatic flush bolt to provide positive latching.

18.2.4 Number of Means of Egress.

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

18.2.4.2 Not less than two exits shall be provided on every story.

18.2.4.3 Not less than two separate exits shall be accessible from every part of every story.
18.2.4.4* Not less than two exits shall be accessible from each smoke compartment, and egress shall be permitted through an adjacent compartment(s), provided that the two required egress paths are arranged so that both do not pass through the same adjacent smoke compartment.

18.2.5 Arrangement of Means of Egress.
18.2.5.1 General. Arrangement of means of egress shall comply with Section 7.5.
18.2.5.2 Dead-End Corridors. Dead-end corridors shall not exceed 30 ft (9.1 m).
18.2.5.3 Common Path of Travel. Common path of travel shall not exceed 100 ft (30 m).
18.2.5.4* Intervening Rooms or Spaces. Every corridor shall provide access to not less than two approved exits in accordance with Sections 7.4 and 7.5 without passing through any intervening rooms or spaces other than corridors or lobbies.

18.2.5.5 Two Means of Egress.
18.2.5.5.1 Sleeping rooms of more than 1000 ft$^2$ (93 m$^2$) shall have not less than two exit access doors remotely located from each other.
18.2.5.5.2 Non-sleeping rooms of more than 2500 ft$^2$ (230 m$^2$) shall have not less than two exit access doors remotely located from each other.

18.2.5.6 Corridor Access.
18.2.5.6.1* Every habitable room shall have an exit access door leading directly to an exit access corridor, unless otherwise provided in 18.2.5.6.2, 18.2.5.6.3, and 18.2.5.6.4.
18.2.5.6.2 Exit access from a patient sleeping room with not more than eight patient beds shall be permitted to pass through one intervening room to reach an exit access corridor, provided that the intervening room is equipped with an approved automatic smoke detection system in accordance with Section 9.6.
18.2.5.6.3 Rooms having an exit door opening directly to the outside from the room at the finished ground level shall not be required to have an exit access door leading directly to an exit access corridor.
18.2.5.6.4 Rooms within suites complying with 18.2.5.7 shall not be required to have an exit access door leading directly to an exit access corridor.

18.2.5.7 Suites.
18.2.5.7.1 General.
18.2.5.7.1.1 Suite Permission. Suites complying with 18.2.5.7 shall be permitted to be used to meet the corridor access requirements of 18.2.5.6.
18.2.5.7.1.2* Suite Separation. Suites shall be separated from the remainder of the building, and from other suites, by walls and doors meeting the requirements of 18.3.6.2 through 18.3.6.5.
18.2.5.7.1.3 Suite Hazardous Contents Areas.
18.2.5.7.1.3(A)* Intervening rooms shall not be hazardous areas as defined by 18.3.2.
18.2.5.7.1.3(B) Hazardous areas within a suite shall be separated from the remainder of the suite in accordance with 18.3.2.1, unless otherwise provided in 18.2.5.7.1.3(C).
18.2.5.7.1.3(C)* Hazardous areas within a suite shall not be required to be separated from the remainder of the suite where complying with all of the following:
18.2.5.7.1.3(C)(1) The suite is primarily a hazardous area.
18.2.5.7.1.3(C)(2) The suite is protected by an approved automatic smoke detection system in accordance with Section 9.6.
18.2.5.7.1.3(C)(3) The suite is separated from the rest of the health care facility as required for a hazardous area by 18.3.2.1.
18.2.5.7.1.4 Suite Subdivision. The subdivision of suites shall be by means of noncombustible or limited-combustible partitions or partitions constructed with fire-retardant-treated wood enclosed with noncombustible or limited-combustible materials, and such partitions shall not be required to be fire rated.
18.2.5.7.2 Sleeping Suites. Sleeping suites shall be in accordance with the following:

(1) Sleeping suites for patient care shall comply with the provisions of 18.2.5.7.2.1 through 18.2.5.7.2.4.

(2) Sleeping suites not for patient care shall comply with the provisions of 18.2.5.7.4.

18.2.5.7.2.1 Sleeping Suite Arrangement Supervision.

(A) Occupants of habitable rooms within sleeping suites shall have exit access to a corridor complying with 18.3.6, or to a horizontal exit, directly from the suite.

(B) Where two or more exit access doors are required from the suite by 18.2.5.5.1, one of the exit access doors shall be permitted to be directly to an exit stair, exit passageway, or exit door to the exterior.

(C) Sleeping suites shall be provided with constant staff supervision within the suite.

(D) Sleeping suites shall be arranged in accordance with one of the following:

(a) The patient sleeping rooms shall be arranged to allow for direct supervision from a normally attended location within the suite, such as is provided by glass walls, and cubicle curtains shall be permitted.

(b) Any patient sleeping rooms without the direct supervision required by 18.2.5.7.2.1(D)(B)(1)(a) shall be provided with smoke detection in accordance with Section 9.6 and 18.3.4.

(2) Sleeping suites shall be provided with a total (complete) coverage (complete) automatic smoke detection system in accordance with 9.6.2.9 and 18.3.4.

18.2.5.7.2.2 Sleeping Suite Number of Means of Egress.

(A) Sleeping suites shall have exit access to a corridor complying with 18.3.6 or to a horizontal exit, directly from the suite.

(B) Sleeping suites of more than 1000 ft² (93 m²) shall have not less than two exit access doors remotely located from each other.

(C) One means of egress from the suite shall be directly to a corridor complying with 18.3.6.

(D) For suites requiring two means of egress exit access doors, one means of egress of the exit access doors from the suite shall be permitted to be into one of the following:

(1) An exit stair
(2) An exit passageway
(3) An exit door to the exterior
(4) Another suite, provided that the separation between the suites complies with the corridor requirements of 18.3.6.2 through 18.3.6.5.

18.2.5.7.2.3 Sleeping Suite Maximum Size.

(A) Reserved.

(B) Sleeping suites shall not exceed 7500 ft² (700 m²), unless otherwise provided in 18.2.5.7.2.3(C).

(C) Sleeping suites greater than 7500 ft² (700 m²) and not exceeding 10,000 ft² (930 m²) shall be permitted where both of the following are provided in the suite:

(1) Direct visual supervision in accordance with 18.2.5.7.2.1(D)(1)(a)
(2) Total (complete) coverage (complete) automatic smoke detection in accordance with 9.6.2.9 and 18.3.4

18.2.5.7.2.4 Sleeping Suite Travel Distance.

(A) Travel distance between any point in a sleeping suite and an exit access corridor door or a horizontal exit door from that suite shall not exceed 100 ft (30 m).

(B) Travel distance between any point in a sleeping suite and an exit shall not exceed 200 ft (61 m).
18.2.5.7.3 **Patient Care Non-Sleeping Suites.** Non-sleeping suites shall be in accordance with the following:

1. Non-sleeping suites for patient care shall comply with the provisions of 18.2.5.7.3.1 through 18.2.5.7.3.3.
2. Non-sleeping suites not for patient care shall comply with the provisions of 18.2.5.7.4.

### 18.2.5.7.3.1 Patient Care Non-Sleeping Suite Arrangement.

1. Occupants of habitable rooms within non-sleeping suites shall have exit access to a corridor complying with 18.3.6, or to a horizontal exit, directly from the suite.
2. Where two or more exit access doors are required from the suite by 18.2.5.5.2, one of the exit access doors shall be permitted to be directly to an exit stair, exit passageway, or exit door to the exterior.

### 18.2.5.7.3.2 Patient Care Non-Sleeping Suite Number of Means of Egress.

1. Patient care non-sleeping suites shall have exit access to a corridor complying with 18.3.6 or to a horizontal exit, directly from the suite.
2. Non-sleeping Patient care non-sleeping suites of more than 2500 ft² (230 m²) shall have not less than two exit access doors remotely located from each other.
3. One means of egress from the suite shall be directly to a corridor complying with 18.3.6.
4. For suites requiring two means of egress, one means of egress from the suite shall be permitted to be into another exit access doors, one of the exit access doors shall be permitted to be to one of the following:
   1. An exit stair
   2. An exit passageway
   3. An exit door to the exterior
   4. Another suite, provided that the separation between the suites complies with the corridor requirements of 18.3.6.2 through 18.3.6.5.

### 18.2.5.7.3.3 Patient Care Non-Sleeping Suite Maximum Size.

1. Non-sleeping suites shall not exceed 10,000 ft² (930 m²) 12,500 ft² (1160 m²), unless otherwise provided in 18.2.5.7.3.2(B).
2. Non-sleeping suites greater than 12,500 ft² (1160 m²) and not exceeding 15,000 ft² (1390 m²) shall be permitted where provided with total (complete) coverage automatic smoke detection in accordance with 9.6.2.9 and 18.3.4.

### 18.2.5.7.3.4 Patient Care Non-Sleeping Suite Travel Distance.

1. Travel distance within a non-sleeping suite to an exit access corridor door or horizontal exit door from the suite shall not exceed 100 ft (30 m).
Travel distance between any point in a non-sleeping suite and an exit shall not exceed 200 ft (61 m).

18.2.5.7.4 Non-Patient-Care Suites. The egress provisions for non-patient-care suites shall be in accordance with the primary use and occupancy of the space.

18.2.6 Travel Distance to Exits.
18.2.6.1 Travel distance shall be measured in accordance with Section 7.6.
18.2.6.2 Travel distance shall comply with 18.2.6.2.1 through 18.2.6.2.4.
18.2.6.2.1 The travel distance between any point in a room and an exit shall not exceed 200 ft (61 m).

18.2.6.2.2 Reserved.
18.2.6.2.3 The travel distance between any point in a health care sleeping room and an exit access door in that room shall not exceed 50 ft (15 m).
18.2.6.2.4 The travel distance within suites shall be in accordance with 18.2.5.7.

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

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

18.2.9 Emergency Lighting.
18.2.9.1 Emergency lighting shall be provided in accordance with Section 7.9.
18.2.9.2 Buildings equipped with, or in which patients require the use of, life-support systems (see 18.5.1.3) shall have emergency lighting equipment supplied by the life safety branch of the electrical system as described in NFPA 99, Health Care Facilities Code.

18.2.10 Marking of Means of Egress.
18.2.10.1 Means of egress shall have signs in accordance with Section 7.10, unless otherwise permitted by 18.2.10.3 or 18.2.10.4.
18.2.10.2 Reserved.
18.2.10.3 Where the path of egress travel is obvious, signs shall not be required at gates in outside secured areas.
18.2.10.4 Access to exits within rooms or sleeping suites shall not be required to be marked where staff is responsible for relocating or evacuating occupants.
18.2.10.5 Illumination of required exit and directional signs in buildings equipped with, or in which patients use, life-support systems (see 18.5.1.3) shall be provided as follows:
   (1) Illumination shall be supplied by the life safety branch of the electrical system as described in NFPA 99, Health Care Facilities Code.
   (2) Self-luminous exit signs complying with 7.10.4 shall be permitted.

18.2.11 Special Means of Egress Features. (Reserved)

18.3 Protection.
18.3.1 Protection of Vertical Openings. Any vertical opening shall be enclosed or protected in accordance with Section 8.6, unless otherwise modified by 18.3.1.1 through 18.3.1.8.

18.3.1.1 Reserved.
18.3.1.2 Unprotected vertical openings in accordance with 8.6.9.1 shall be permitted.
18.3.1.3 Subparagraph 8.6.7(1)(b) shall not apply to patient sleeping and treatment rooms.
18.3.1.4 Multilevel patient sleeping areas in psychiatric facilities shall be permitted without enclosure protection between levels, provided that all of the following conditions are met:
   (1) The entire normally occupied area, including all communicating floor levels, is sufficiently open and unobstructed so that a fire or other dangerous condition in any part is obvious to the occupants or supervisory personnel in the area.
The egress capacity provides simultaneously for all the occupants of all communicating levels and areas, with all communicating levels in the same fire area being considered as a single floor area for purposes of determination of required egress capacity.

The height between the highest and lowest finished floor levels does not exceed 13 ft (3960 mm), and the number of levels is permitted to be unrestricted.

Unprotected openings in accordance with 8.6.6 shall not be permitted.

Reserved.

A door in a stair enclosure shall be self-closing and shall normally be kept in the closed position, unless otherwise permitted by 18.3.1.8.

Doors in stair enclosures shall be permitted to be held open under the conditions specified by 18.2.2.2.7 and 18.2.2.2.8.

Protection from Hazards.

Hazardous Areas.

Any hazardous areas shall be protected in accordance with Section 8.7, and the areas described in Table 18.3.2.1 addressed in 18.3.2.1.2 and 18.3.2.1.3 shall be protected as indicated.

The following areas shall be considered hazardous areas and shall be protected by fire barriers having a minimum 1-hour fire resistance rating in accordance with Section 8.3:

1. Boiler and fuel-fired heater rooms
2. Central/bulk laundries larger than 100 ft$^2$ (9.3 m$^2$)
3. Laboratories that use hazardous materials that would be classified as a severe hazard in accordance with NFPA 99, Standard for Health Care Facilities
4. Paint shops employing hazardous substances and materials in quantities less than those that would be classified as a severe hazard
5. Physical plant maintenance shops
6. Rooms with soiled linen in volume exceeding 64 gal (242 L)
7. Rooms with collected trash in volume exceeding 64 gal (242 L)
8. Storage rooms larger than 100 ft$^2$ (9.3 m$^2$) and storing combustible material

The following areas shall be considered hazardous areas and shall be protected by smoke partitions in accordance with Section 8.4:

1. Laboratories employing flammable or combustible materials in quantities less than those that would be considered a severe hazard
2. Storage rooms larger than 50 ft$^2$ (4.6 m$^2$) but not exceeding 100 ft$^2$ (9.3 m$^2$) and storing combustible material

Laboratories. Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered as a severe hazard shall be protected in accordance with NFPA 99, Health Care Facilities Code.

Anesthetizing Locations. Anesthetizing locations shall be protected in accordance with NFPA 99, Health Care Facilities Code.

Hyperbaric Chambers. Health care occupancies housing hyperbaric chambers shall comply with 8.7.5.

Medical Gas. Medical gas storage and administration areas shall be protected in accordance with NFPA 99, Health Care Facilities Code.

Cooking Facilities.
18.3.2.5.1 Cooking facilities shall be protected in accordance with 9.2.3, unless otherwise permitted by 18.3.2.5.2, 18.3.2.5.3, or 18.3.2.5.4.

18.3.2.5.2* Where residential cooking equipment is used for food warming or limited cooking, the equipment shall not be required to be protected in accordance with 9.2.3, and the presence of the equipment shall not require the area to be protected as a hazardous area.

18.3.2.5.3* Within a smoke compartment, where residential or commercial cooking equipment is used to prepare meals for 30 or fewer persons, one cooking facility shall be permitted to be open to the corridor, provided that all of the following conditions are met:

(1) The portion of the health care facility served by the cooking facility is limited to 30 beds and is separated from other portions of the health care facility by a smoke barrier constructed in accordance with 18.3.7.3, 18.3.7.6, and 18.3.7.8.

(2) The cooktop or range is equipped with a range hood of a width at least equal to the width of the cooking surface, with grease baffles or other grease-collecting and clean-out capability.

(3)* The hood systems have a minimum airflow of 500 cfm (14,000 L/min).

(4) The hood systems that are not ducted to the exterior additionally have a charcoal filter to remove smoke and odor.

(5) The cooktop or range complies with all of the following:

(a) The cooktop or range is protected with a fire suppression system listed in accordance with UL-ANSI/UL 300, Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment, or is tested and meets all requirements of UL 300A, Extinguishing System Units for Residential Range Top Cooking Surfaces, in accordance with the applicable testing document's scope.

(b) A manual release of the extinguishing system is provided in accordance with Section 10.5 of NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

(c) An interlock is provided to turn off all sources of fuel and electrical power to the cooktop or range when the suppression system is activated.

(6)* The use of solid fuel for cooking is prohibited.

(7)* Deep-fat frying is prohibited.

(8) Portable fire extinguishers in accordance with NFPA 96 are located in all kitchen areas.

(9)* A switch meeting all of the following is provided:

(a) A locked switch, or a switch located in a restricted location, is provided within the cooking facility that deactivates the cooktop or range.

(b) The switch is used to deactivate the cooktop or range whenever the kitchen is not under staff supervision.

(c) The switch is on a timer, not exceeding a 120-minute capacity, that automatically deactivates the cooktop or range, independent of staff action.

(10) Procedures for the use, inspection, testing, and maintenance of the cooking equipment are in accordance with Chapter 11 of NFPA 96 and the manufacturer’s instructions and are followed.

(11)* Not less than two AC-powered photoelectric smoke alarms with battery backup, interconnected in accordance with 9.6.2.10.3, and equipped with a silence feature, and in accordance with NFPA 72, National Fire Alarm and Signaling Code, are located not closer than 20 ft (6.1 m) and not further than 25 ft (7.6 m) from the cooktop or range.

(12)* The smoke alarms required by 18.3.2.5.3(11) are permitted to be located outside the kitchen area where such placement is necessary for compliance with the 20- ft (7.6- m) minimum distance criterion.
18.3.2.5.3(11) provided the following criteria are met:

(a) The detector is located not closer than 20 ft (6.1 m) and not further than 25 ft (7.6 m) from the cooktop or range.

(b) The detector is permitted to initiate a local audible alarm signal only.

(c) The detector is not required to initiate a building-wide occupant notification signal.

(d) The detector is not required to notify the emergency forces.

(e) The local audible signal initiated by the detector is permitted to be silenced and reset by a button on the detector or by a switch installed within 10 ft (3.0 m) of the system smoke detector.

18.3.2.5.4* Within a smoke compartment, residential or commercial cooking equipment that is used to prepare meals for 30 or fewer persons shall be permitted, provided that the cooking facility complies with all of the following conditions:

1. The space containing the cooking equipment is not a sleeping room.

2. The space containing the cooking equipment is separated from the corridor by partitions complying with 18.3.6.2 through 18.3.6.5.

3. The requirements of 18.3.2.5.3(1) through (10) are met.

18.3.2.5.5* Where cooking facilities are protected in accordance with 9.2.3, the presence of the cooking equipment shall not cause the room or space housing the equipment to be classified as a hazardous area with respect to the requirements of 18.3.2.1, and the room or space shall not be permitted to be open to the corridor.

18.3.2.6* 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 conditions are met:

1. Where dispensers are installed in a corridor, the corridor shall have a minimum width of 6 ft (1830 mm).

2. The maximum individual dispenser fluid capacity shall be as follows:
   (a) 0.32 gal (1.2 L) for dispensers in rooms, corridors, and areas open to corridors
   (b) 0.53 gal (2.0 L) for dispensers in suites of rooms

3. Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz. (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B, Code for the Manufacture and Storage of Aerosol Products.

4. Dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).

5. Not more than an aggregate 10 gal (37.8 L) of alcohol-based hand-rub solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment, except as otherwise provided in 18.3.2.6(6).

6. One dispenser complying with 18.3.2.6(2) or (3) per room and located in that room shall not be included in the aggregated quantity addressed in 18.3.2.6(5).

7. Storage of quantities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30, Flammable and Combustible Liquids Code.

8. Dispensers shall not be installed in the following locations:
(a) Above an ignition source within a 1 in. (25 mm) horizontal distance from each side of the ignition source
(b) To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source
(c) Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source

(9) Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments.

(10) The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.

(11) Operation of the dispenser shall comply with the following criteria:
(a) The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation.
(b) Any activation of the dispenser shall occur only when an object is placed within 4 in. (100 mm) of the sensing device.
(c) An object placed within the activation zone and left in place shall not cause more than one activation.
(d) The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.
(e) The dispenser shall be designed, constructed, and operated in a manner that ensures that accidental or malicious activation of the dispensing device is minimized.
(f) The dispenser shall be tested in accordance with the manufacturer’s care and use instructions each time a new refill is installed.

18.3.2.76 Heliports. Buildings that house health care occupancies, as indicated in 18.1.1.1.4, and have rooftop heliports shall be protected in accordance with NFPA 418, Standard for Heliports.

18.3.3 Interior Finish.
18.3.3.1 General. Interior finish shall be in accordance with Section 10.2.
18.3.3.2* Interior Wall and Ceiling Finish. Interior wall and ceiling finish materials complying with Section 10.2 shall be permitted throughout if Class A, except as indicated in 18.3.3.2.1 or 18.3.3.2.2.
18.3.3.2.1 Walls and ceilings shall be permitted to have Class A or Class B interior finish in individual rooms having a capacity not exceeding four persons.
18.3.3.2.2 Corridor wall finish not exceeding 48 in. (1220 mm) in height that is restricted to the lower half of the wall shall be permitted to be Class A or Class B.

18.3.3.3 Interior Floor Finish.
18.3.3.3.1 Interior floor finish shall comply with Section 10.2.
18.3.3.3.2 Interior floor finish in exit enclosures and exit access corridors and spaces not separated from them by walls complying with 18.3.6 shall be Class I or Class II.
18.3.3.3.3 Interior floor finish shall comply with 10.2.7.1 or 10.2.7.2, as applicable.

18.4 Detection, Alarm, and Communications Systems.
18.4.1 General. Health care occupancies shall be provided with a fire alarm system in accordance with Section 9.6.
18.4.2* Initiation.

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18.4.2.1 Initiation of the required fire alarm systems shall be by manual means in accordance with 9.6.2 and by means of any required sprinkler system waterflow alarms, detection devices, or detection systems, unless otherwise permitted by 18.3.4.2.2 and 18.3.4.2.3.
18.3.4.2.2 Manual fire alarm boxes in patient sleeping areas shall not be required at exits if located at all nurses’ control stations or other continuously attended staff location, provided that both of the following criteria are met:

1. Such manual fire alarm boxes are visible and continuously accessible.
2. Travel distances required by 9.6.2.5 are not exceeded.

18.3.4.2.3 The system smoke detector installed in accordance with 18.3.2.5.3(13) shall not be required to initiate the fire alarm system.

18.3.4.3 Notification. Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

18.3.4.3.1 Occupant Notification. Occupant notification shall be accomplished automatically in accordance with 9.6.3, unless otherwise modified by the following:

1. Paragraph 9.6.3.2.3 shall not be permitted to be used.
2. In lieu of audible alarm signals, visible alarm-indicating appliances shall be permitted to be used in critical care areas.
3. The provision of 18.3.2.5.3(13)(c) shall be permitted to be used.

18.3.4.3.2 Emergency Forces Notification.

18.3.4.3.2.1 Fire department emergency forces notification shall be accomplished in accordance with 9.6.4, except that the provision of 18.3.2.5.3(13)(d) shall be permitted to be used.

18.3.4.3.3 Annunciation and Annunciation Zoning.

18.3.4.3.3.1 Annunciation and annunciation zoning shall be provided in accordance with 9.6.7, unless otherwise permitted by 18.3.4.3.3.2 or 18.3.4.3.3.3.

18.3.4.3.3.2 The alarm zone shall be permitted to coincide with the permitted area for smoke compartments.

18.3.4.3.3.3 The provision of 9.6.7.4.3, which permits sprinkler system waterflow to be annunciated as a single building zone, shall be prohibited.

18.3.4.4 Fire Safety Functions. Operation of any activating device in the required fire alarm system shall be arranged to accomplish automatically any control functions to be performed by that device. (See 9.6.5.)

18.3.4.5 Detection.

18.3.4.5.1 General. Detection systems, where required, shall be in accordance with Section 9.6.

18.3.4.5.2 Detection in Spaces Open to Corridors. See 18.3.6.1.

18.3.4.5.3* Nursing Homes. An approved automatic smoke detection system shall be installed in corridors throughout smoke compartments containing patient sleeping rooms and in spaces open to corridors as permitted in nursing homes by 18.3.6.1, unless otherwise permitted by one of the following:

1. Corridor systems shall not be required where each patient sleeping room is protected by an approved smoke detection system.
(2) Corridor systems shall not be required where patient room doors are equipped with automatic
door-closing devices with integral smoke detectors on the room side installed in accordance with their
listing, provided that the integral detectors provide occupant notification.

18.3.5 Extinguishment Requirements.
18.3.5.1* Buildings containing health care occupancies shall be protected throughout by an approved,
supervised automatic sprinkler system in accordance with Section 9.7, unless otherwise permitted by
18.3.5.5.

18.3.5.2 Reserved.
18.3.5.3 Reserved.
18.3.5.4 The sprinkler system required by 18.3.5.1 shall be installed in accordance with 9.7.1.1(1).
18.3.5.5 In Type I and Type II construction, alternative protection measures shall be permitted to be
substituted for sprinkler protection without causing a building to be classified as nonsprinklered in
specified areas where the authority having jurisdiction has prohibited sprinklers.

18.3.5.6* Listed quick-response or listed residential sprinklers shall be used throughout smoke
compartments containing patient sleeping rooms.

18.3.5.7 Reserved.
18.3.5.8 Reserved.
18.3.5.9 Reserved.

18.3.5.10* 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, Standard for the Installation of Sprinkler Systems.

18.3.5.11* Sprinklers in areas where cubicle curtains are installed shall be in accordance with NFPA
13, Standard for the Installation of Sprinkler Systems.

18.3.5.12 Portable fire extinguishers shall be provided in all health care occupancies in accordance
with 9.7.4.1.

18.3.6 Corridors.
18.3.6.1 Corridor Separation. Corridors shall be separated from all other areas by partitions
complying with 18.3.6.2 through 18.3.6.5 (see also 18.2.5.4), unless otherwise permitted by one of
the following:

(1) Spaces shall be permitted to be unlimited in area and open to the corridor, provided that all of
the following criteria are met:
(a)* The spaces are not used for patient sleeping rooms, treatment rooms, or hazardous areas.
(b) The corridors onto which the spaces open in the same smoke compartment are protected by
an electrically supervised automatic smoke detection system in accordance with 18.3.4, or the smoke
compartment in which the space is located is protected throughout by quick-response sprinklers.
(c) The open space is protected by an electrically supervised automatic smoke detection system
in accordance with 18.3.4, or the entire space is arranged and located to allow direct supervision by
the facility staff from a nurses’ station or similar space.
(d) The space does not obstruct access to required exits.

(2) Waiting areas shall be permitted to be open to the corridor, provided that all of the following
criteria are met:
(a) The aggregate waiting area in each smoke compartment does not exceed 600 ft² (55.7 m²).
(b) Each area is protected by an electrically supervised automatic smoke detection system in
accordance with 18.3.4, or each area is arranged and located to allow direct supervision by the facility
staff from a nursing station or similar space.
(c) The area does not obstruct access to required exits.
(3)* This requirement shall not apply to spaces for nurses’ stations.
(4) Gift shops not exceeding 500 ft² (46.4 m²) shall be permitted to be open to the corridor or lobby.

(5) In a limited care facility, group meeting or multipurpose therapeutic spaces shall be permitted to open to the corridor, provided that all of the following criteria are met:
   (a) The space is not a hazardous area.
   (b) The space is protected by an electrically supervised automatic smoke detection system in accordance with 18.3.4, or the space is arranged and located to allow direct supervision by the facility staff from the nurses’ station or similar location.
   (c) The space does not obstruct access to required exits.

(6) Cooking facilities in accordance with 18.3.2.5.3 shall be permitted to be open to the corridor.

18.3.6.2* Construction of Corridor Walls.
18.3.6.2.1 Corridor walls shall be permitted to terminate at the ceiling where the ceiling is constructed to limit the transfer of smoke.
18.3.6.2.2 No fire resistance rating shall be required for corridor walls.
18.3.6.2.3* Corridor walls shall form a barrier to limit the transfer of smoke.

18.3.6.3* Corridor Doors.

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18.3.6.3.1* Doors, including doors or panels to nurse servers and pass-through openings, protecting corridor openings shall be constructed to resist the passage of smoke, and the following also shall apply:
   (1) Compliance with NFPA 80, Standard for Fire Doors and Other Opening Protectives, shall not be required.
   (2) For other than doors protecting pass-through openings, a clearance between the bottom of the door and the floor covering not exceeding 1 in. (25 mm) shall be permitted, for corridor doors.
   (3) For doors protecting pass-through openings, a clearance between the bottom of the door and the sill not exceeding 1/8 in. (3 mm) shall be permitted.

(3-4) Doors to toilet rooms, bathrooms, shower rooms, sink closets, and similar auxiliary spaces that do not contain flammable or combustible material shall not be required to be constructed to resist the passage of smoke.

18.3.6.3.2 Reserved.
18.3.6.3.3 Reserved.
18.3.6.3.4 Reserved.
18.3.6.3.5 Doors shall be self-latching and provided with positive latching hardware.
18.3.6.3.6 Doors to toilet rooms, bathrooms, shower rooms, sink closets, and similar auxiliary spaces that do not contain flammable or combustible materials shall not be required to meet the latching requirements of 18.3.6.3.5.

18.3.6.3.7 Powered doors that comply with the requirements of 7.2.1.9 shall not be required to meet the latching requirements of 18.3.6.3.5, provided that both of the following criteria are met:
   (1) The door is equipped with a means for keeping the door closed that is acceptable to the authority having jurisdiction.
   (2) The device used is capable of keeping the door fully closed if a force of 5 lbf (22 N) is applied at the latch edge of a swinging door and applied in any direction to a sliding or folding door, whether or not power is applied.

18.3.6.3.8 Corridor doors utilizing an inactive leaf shall have automatic flush bolts on the inactive leaf to provide positive latching.

18.3.6.3.9 Roller Latches.
18.3.6.3.9.1 Roller latches shall be prohibited, except as permitted by 18.3.6.3.9.2
18.3.6.3.9.2  Roller latches shall be permitted for acute psychiatric settings where patient special clinical needs require specialized protective measures for their safety, provided that the roller latches are capable of keeping the door fully closed if a force of 5 lbf (22 N) is applied at the latch edge of the door.

18.3.6.3.10*  Doors shall not be held open by devices other than those that release when the door is pushed or pulled.

18.3.6.3.11  Door-closing devices shall not be required on doors in corridor wall openings other than those serving required exits, smoke barriers, or enclosures of vertical openings and hazardous areas.

18.3.6.3.12*  Nonrated, factory- or field-applied protective plates, unlimited in height, shall be permitted.

18.3.6.3.13  Dutch doors shall be permitted where they conform to 18.3.6.3 and meet all of the following criteria:

1. Both the upper leaf and lower leaf are equipped with a latching device.
2. The meeting edges of the upper and lower leaves are equipped with an astragal, a rabbet, or a bevel.
3. Where protecting openings in enclosures around hazardous areas, the doors comply with NFPA 80, Standard for Fire Doors and Other Opening Protectives.

18.3.6.4  Transfer Grilles.

18.3.6.4.1  Transfer grilles, regardless of whether they are protected by fusible link-operated dampers, shall not be used in corridor walls or doors, unless otherwise permitted by 18.3.6.4.2.

18.3.6.4.2  Doors to toilet rooms, bathrooms, shower rooms, sink closets, and similar auxiliary spaces that do not contain flammable or combustible materials shall be permitted to have ventilating louvers or to be undercut.

18.3.6.5  Openings.

18.3.6.5.1*  In other than smoke compartments containing patient bedrooms, miscellaneous openings, such as mail slots, pharmacy pass-through windows, laboratory pass-through windows, and cashier pass-through windows, shall be permitted to be installed in vision panels or doors without special protection, provided that both of the following criteria are met:

1. The aggregate area of openings per room does not exceed 80 in.² (0.05 m²).
2. The openings are installed at or below half the distance from the floor to the room ceiling.

18.3.6.5.2  Reserved.

18.3.7*  Subdivision of Building Spaces.

18.3.7.1  Buildings containing health care facilities shall be subdivided by smoke barriers (see 18.2.4.3), unless otherwise permitted by 18.3.7.2, as follows:

1. To divide every story used by inpatients for sleeping or treatment into not less than two smoke compartments
2. To divide every story having an occupant load of 50 or more persons, regardless of use, into not less than two smoke compartments
3. To limit the size of each smoke compartment required by 18.3.7.1(1) and (2) to an area not exceeding 22,500 40,000 ft² (2100 3720 m²), unless the area is an atrium separated in accordance with 8.6.7, in which case no limitation in size is required
4. To limit the travel distance from any point to reach a door in the required smoke barrier to a distance not exceeding 200 ft (61 m)
18.3.7.2 The smoke barrier subdivision requirement of 18.3.7.1 shall not apply to any of the following occupancies:

1. Stories that do not contain a health care occupancy located directly above the health care occupancy
2. Areas on health care floors that do not contain a health care occupancy and that are separated from the health care occupancy by a fire barrier complying with 7.2.4.3
3. Stories that do not contain a health care occupancy and that are more than one story below the health care occupancy
4. Stories located directly below a health care occupancy where such stories house mechanical equipment only and are separated from the story above by 2-hour fire resistance-rated construction
5. Open-air parking structures protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7

18.3.7.3 Any required smoke barrier shall be constructed in accordance with Section 8.5 and shall have a minimum 1-hour fire resistance rating, unless otherwise permitted by one of the following:

1. This requirement shall not apply where an atrium is used, and both of the following criteria also shall apply:
   a. Smoke barriers shall be permitted to terminate at an atrium wall constructed in accordance with 8.6.7(1)(c).
   b. Not less than two separate smoke compartments shall be provided on each floor.
2. Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air-conditioning systems.

18.3.7.4 Materials and methods of construction used for required smoke barriers shall not reduce the required fire resistance rating.

18.3.7.5 Accumulation space shall be provided in accordance with 18.3.7.5.1 and 18.3.7.5.2.

18.3.7.5.1 Not less than 30 net ft\(^2\) (2.8 net m\(^2\)) per patient in a hospital or nursing home, or not less than 15 net ft\(^2\) (1.4 net m\(^2\)) per resident in a limited care facility, shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other low hazard areas on each side of the smoke barrier.

18.3.7.5.2 On stories not housing bedridden or litterborne patients, not less than 6 net ft\(^2\) (0.56 net m\(^2\)) per occupant shall be provided on each side of the smoke barrier for the total number of occupants in adjoining compartments.

18.3.7.6* Doors in smoke barriers shall be substantial doors, such as non-rated \(1\ 3/4\) in. (44 mm) thick, solid-bonded wood-core doors, or shall be of construction that resists fire for a minimum of 20 minutes, and shall meet the following requirements:

1. Nonrated factory- or field-applied protective plates, unlimited in height, shall be permitted.
2. Cross-corridor openings in smoke barriers shall be protected by a pair of swinging doors or a horizontal sliding door special-purpose horizontally sliding accordion or folding door assembly complying with 7.2.1.14, unless otherwise permitted by 18.3.7.7.
3. The swinging doors addressed by 18.3.7.6(2) shall be arranged so that each door swings in a direction opposite from the other.
4. The minimum clear width for swinging doors shall be as follows:
   a. Hospitals and nursing homes — 41½ in. (1055 mm)
   b. Psychiatric hospitals and limited care facilities — 32 in. (810 mm)
The minimum clear width opening for horizontal-sliding doors shall be as follows:

(a) Hospitals and nursing homes — 6 ft 11 in. (2110 mm)
(b) Psychiatric hospitals and limited care facilities — 6 ft 4 in. (1930 mm)
(6) The clearance under the bottom of smoke barrier doors shall not exceed ¾ in. (19 mm).

Cross-corridor openings in smoke barriers that are not in required means of egress from a health care space shall be permitted to be protected by a single-leaf door.

Doors in smoke barriers shall comply with 8.5.4 and all of the following:

(1) The doors shall be self-closing or automatic-closing in accordance with 18.2.2.2.7.
(2) Latching hardware shall not be required.
(3) Stops shall be required at the head and sides of door frames.
(4) Rabbets, bevels, or astragals shall be required at the meeting edges of pairs of doors.
(5) Center mullions shall be prohibited.

Vision panels consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier.

The bottom of at least one vision panel in each leaf shall be not more than 43 in. (1090 mm) above the finished floor.

Vision panels in doors in smoke barriers, if provided, shall be of fire-rated glazing in approved frames.

Special Protection Features. (Reserved)

Limited Access Buildings. Limited access buildings or limited access portions of buildings shall not be used for patient sleeping rooms and shall comply with Section 11.7.

High-Rise Buildings. High-rise buildings shall comply with Section 11.8.

Alcohol-based hand-rub dispensers shall be protected in accordance with 8.7.3.1, unless all of the following conditions are met:

(1) Where dispensers are installed in a corridor, the corridor shall have a minimum width of 6 ft (1830 mm).
(2) The maximum individual dispenser fluid capacity shall be as follows:
(a) 0.32 gal (1.2 L) for dispensers in rooms, corridors, and areas open to corridors
(b) 0.53 gal (2.0 L) for dispensers in suites of rooms
(3) Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B, Code for the Manufacture and Storage of Aerosol Products.
(4) Dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).
(5) Not more than an aggregate 10 gal (37.8 L) of alcohol-based hand-rub solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment, except as otherwise provided in 18.4.3(6).
(6) One dispenser complying with 18.4.3(2) or (3) per room and located in that room shall not be included in the aggregated quantity addressed in 18.4.3(5).
(7) Storage of quantities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30, Flammable and Combustible Liquids Code.
(8) Dispensers shall not be installed in the following locations:
(a) Above an ignition source within a 1 in. (25 mm) horizontal distance from each side of the ignition source
(b) To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source
(c) Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source

(9) Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments.

(10) The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.

(11) Operation of the dispenser shall comply with the following criteria:
(a) The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation.
(b) Any activation of the dispenser shall occur only when an object is placed within 4 in. (100 mm) of the sensing device.
(c) An object placed within the activation zone and left in place shall not cause more than one activation.
(d) The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.
(e) The dispenser shall be designed, constructed, and operated in a manner that ensures that accidental or malicious activation of the dispensing device is minimized.
(f) The dispenser shall be tested in accordance with the manufacturer’s care and use instructions each time a new refill is installed.

18.4.34 Nonsprinklered Existing Smoke Compartment Rehabilitation.
18.4.34.1* General. Where a modification in a nonsprinklered smoke compartment is exempted by the provisions of 18.1.1.4.3.4 from the sprinkler requirement of 18.3.5.1, the requirements of 18.4.3.2 through 18.4.3.8 shall apply.

18.4.34.2 Minimum Construction Requirements (Nonsprinklered Smoke Compartment Rehabilitation). Health care occupancies in buildings not protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7 shall be limited to the building construction types specified in Table 18.4.34.2.

<table>
<thead>
<tr>
<th>Construction Type</th>
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<th>Total Number of Stories of Building†</th>
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### Table 18.4.3.4.1

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</tbody>
</table>

NA: Not applicable. X: Permitted. NP: Not permitted.

The total number of stories of the building is required to be determined as follows:

1. The total number of stories is to be counted starting with the level of exit discharge and ending with the highest occupiable story of the building.
2. Stories below the level of exit discharge are not counted as stories.
3. Interstitial spaces used solely for building or process systems directly related to the level above or below are not considered a separate story.
4. A mezzanine in accordance with 8.6.9 is not counted as a story.

†Basements are not counted as stories.

### 18.4.3.4 Capacity of Means of Egress (Nonsprinklered Smoke Compartment Rehabilitation).

The capacity of the means of egress serving the modification area shall be as follows:

1. ½ in. (13 mm) per person for horizontal travel, without stairs, by means such as doors, ramps, or level floor surfaces
2. 0.6 in. (15 mm) per person for travel by means of stairs

### 18.4.3.4.1 Travel Distance (Nonsprinklered Smoke Compartment Rehabilitation).

1. 150 ft (46 m) where the travel is wholly within smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7
2. 100 ft (30 m) where the travel is not wholly within smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7

### 18.4.3.4.2 The travel distance between any point in a room and an exit shall not exceed the following:

1. 200 ft (61 m) where the travel is wholly within smoke compartments protected throughout by an approved supervised sprinkler system in accordance with 19.3.5.7
2. 150 ft (46 m) where the travel is not wholly within smoke compartments protected throughout by an approved supervised sprinkler system in accordance with 19.3.5.7

### 18.4.3.5 Hazardous Area Protection (Nonsprinklered Smoke Compartment Rehabilitation).

Where a new hazardous area is formed in an existing nonsprinklered smoke compartment, the hazardous area itself shall be protected as indicated in Table 18.4.3.5.
<table>
<thead>
<tr>
<th>Hazardous Area Description</th>
<th>Protection†/Separation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler and fuel-fired heater rooms</td>
<td>1 hour and sprinklers</td>
</tr>
<tr>
<td>Central/bulk laundries larger than 100 ft² (9.3 m²)</td>
<td>1 hour and sprinklers</td>
</tr>
<tr>
<td>Laboratories employing flammable or combustible materials in quantities less than those that would be considered a severe hazard</td>
<td>1 hour or sprinklers (Also see 18.4.34.7.2.2.)</td>
</tr>
<tr>
<td>Laboratories that use hazardous materials that would be classified as a severe hazard in accordance with NFPA 99, <em>Standard for Health Care Facilities</em></td>
<td>1 hour and sprinklers</td>
</tr>
<tr>
<td>Paint shops employing hazardous substances and materials in quantities less than those that would be classified as a severe hazard</td>
<td>1 hour and sprinklers</td>
</tr>
<tr>
<td>Physical plant maintenance shops</td>
<td>1 hour and sprinklers</td>
</tr>
<tr>
<td>Soiled linen rooms</td>
<td>1 hour and sprinklers</td>
</tr>
<tr>
<td>Storage rooms larger than 50 ft² (4.6 m²) but not exceeding 100 ft² (9.3 m²) and storing combustible material</td>
<td>1 hour or sprinklers (Also see 18.4.34.7.2.2.)</td>
</tr>
<tr>
<td>Storage rooms larger than 100 ft² (9.3 m²) and storing combustible material</td>
<td>1 hour and sprinklers</td>
</tr>
<tr>
<td>Trash collection rooms</td>
<td>1 hour and sprinklers</td>
</tr>
</tbody>
</table>

†Minimum fire resistance rating.

**18.4.34.6 Interior Finish (Nonsprinklered Smoke Compartment Rehabilitation).**

**18.4.34.6.1 General.** Interior finish within the modification area shall be in accordance with Section 10.2.

**18.4.34.6.2 Interior Wall and Ceiling Finish.** Newly installed interior wall and ceiling finish materials complying with Section 10.2 shall be permitted throughout nonsprinklered smoke compartments if the materials are Class A, except as otherwise permitted in 18.4.34.6.2.1 or 18.4.34.6.2.2.

**18.4.34.6.2.1 Walls and ceilings shall be permitted to have Class A or Class B interior finish in individual rooms having a capacity not exceeding four persons.**

**18.4.34.6.2.2 Corridor wall finish not exceeding 48 in. (1220 mm) in height and restricted to the lower half of the wall shall be permitted to be Class A or Class B.**
18.4.34.6.3 Interior Floor Finish.
18.4.34.6.3.1 Newly installed interior floor finish shall comply with Section 10.2.
18.4.34.6.3.2 The requirements for newly installed interior floor finish in exit enclosures and corridors not separated from them by walls complying with 19.3.5.7 shall be as follows:
   (1) Unrestricted in smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7
   (2) Not less than Class I in smoke compartments not protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7

18.4.34.7 Corridors (Nonsprinklered Smoke Compartment Rehabilitation).
18.4.34.7.1 Construction of Corridor Walls.
18.4.34.7.1.1 Where the smoke compartment being modified is not protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7, corridor walls shall comply with all of the following, as modified by 18.4.34.7.1.2:
   (1) They shall have a minimum ½-hour fire resistance rating.
   (2) They shall be continuous from the floor to the underside of the floor or roof deck above.
   (3) They shall resist the passage of smoke.
18.4.34.7.1.2 The requirements of 18.4.34.7.1.1 shall be permitted to be modified for conditions permitted by 19.3.6.1(3) and (4) and 19.3.6.1(6) through (8).

18.4.34.7.2 Corridor Doors.
18.4.34.7.2.1 Where the smoke compartment being modified is not protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7, all of the following shall apply:
   (1) Doors protecting corridor openings shall be constructed of 1¾ in. (44 mm) thick, solid-bonded core wood or of construction that resists the passage of fire for a minimum of 20 minutes.
   (2) Door frames shall be labeled or of steel construction.
   (3) Existing roller latches demonstrated to keep the door closed against a force of 5 lbf (22 N) shall be permitted.
18.4.34.7.2.2 Door-closing devices shall be required on doors in corridor wall openings serving smoke barriers or enclosures of exits, hazardous contents areas, or vertical openings.

18.4.34.8 Subdivision of Building Space (Nonsprinklered Smoke Compartment Rehabilitation). Subparagraph 18.3.7.3(2) shall be permitted only where adjacent smoke compartments are protected throughout by an approved, supervised automatic sprinkler system in accordance with 18.3.5.4 and 18.3.5.6.

18.5 Building Services.
18.5.1 Utilities.
18.5.1.1 Utilities shall comply with the provisions of Section 9.1.
18.5.1.2 Power for alarms, emergency communications systems, and illumination of generator set locations shall be in accordance with the essential electrical system requirements of NFPA 99, Health Care Facilities Code.
18.5.1.3 Any health care occupancy, as indicated in 18.1.1.1.4, that normally uses life-support devices shall have electrical systems designed and installed in accordance with NFPA 99, Health Care Facilities Code, unless the facility uses life-support equipment for emergency purposes only.

18.5.2 Heating, Ventilating, and Air-Conditioning.
18.5.2.1 Heating, ventilating, and air-conditioning shall comply with the provisions of Section 9.2 and shall be installed in accordance with the manufacturer's specifications, unless otherwise modified by 18.5.2.2.
18.5.2.2* Any heating device, other than a central heating plant, shall be designed and installed so that combustible material cannot be ignited by the device or its appurtenances, and the following requirements shall also apply:

(1) If fuel-fired, such heating devices shall comply with the following:
   (a) They shall be chimney connected or vent connected.
   (b) They shall take air for combustion directly from outside.
   (c) They shall be designed and installed to provide for complete separation of the combustion system from the atmosphere of the occupied area.

(2) Any heating device shall have safety features to immediately stop the flow of fuel and shut down the equipment in case of either excessive temperatures or ignition failure.

18.5.2.3 The requirements of 18.5.2.2 shall not apply where otherwise permitted by the following:

(1) Approved, suspended unit heaters shall be permitted in locations other than means of egress and patient sleeping areas, provided that both of the following criteria are met:
   (a) Such heaters are located high enough to be out of the reach of persons using the area.
   (b) Such heaters are equipped with the safety features required by 18.5.2.2.

(2) Direct-vent gas fireplaces, as defined in NFPA 54, National Fuel Gas Code, shall be permitted inside of smoke compartments containing patient sleeping areas, provided that all of the following criteria are met:
   (a) All such devices shall be installed, maintained, and used in accordance with 9.2.2.
   (b) No such device shall be located inside of a patient sleeping room.
   (c) The smoke compartment in which the direct-vent gas fireplace is located shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1) with listed quick-response or listed residential sprinklers.
   (d)* The direct-vent fireplace shall include a sealed glass front with a wire mesh panel or screen.
   (e)* The controls for the direct-vent gas fireplace shall be locked or located in a restricted location.
   (f) Electrically supervised carbon monoxide detection in accordance with Section 9.8 shall be provided in the room where the fireplace is located.

(3) Solid fuel–burning fireplaces shall be permitted and used only in areas other than patient sleeping areas, provided that all of the following criteria are met:
   (a) Such areas are separated from patient sleeping spaces by construction having not less than a 1-hour fire resistance rating.
   (b) The fireplace complies with the provisions of 9.2.2.
   (c) The fireplace is equipped with both of the following:
      i. Hearth raised not less than 4 in. (100 mm)
      ii. Fireplace enclosure guaranteed against breakage up to a temperature of 650°F (343°C) and constructed of heat-tempered glass or other approved material
   (d) Electrically supervised carbon monoxide detection in accordance with Section 9.8 is provided in the room where the fireplace is located.

(4) If, in the opinion of the authority having jurisdiction, special hazards are present, a lock on the enclosure specified in 18.5.2.3(3)(c)(ii) and other safety precautions shall be permitted to be required.

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

18.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes.

18.5.4.1 Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5, unless otherwise specified in 18.5.4.2.
18.5.4.2 The fire resistance rating of chute charging service opening rooms shall not be required to exceed 1 hour.

18.5.4.3 Any rubbish chute or linen chute, including pneumatic rubbish and linen systems, shall be provided with automatic extinguishing protection in accordance with Section 9.7. (See Section 9.5.)

18.5.4.4 Any rubbish chute shall discharge into a trash collection chute discharge room used for no other purpose and shall be protected in accordance with Section 8.7 and Section 9.5.

18.5.4.5 Reserved.

18.5.4.6 Incinerators shall not be directly flue-fed, nor shall any floor-charging chute directly connect with the combustion chamber.

18.6 Reserved.

18.7* Operating Features.

18.7.1 Evacuation and Relocation Plan and Fire Drills.

18.7.1.1 The administration of every health care occupancy shall have, in effect and available to all supervisory personnel, written copies of a plan for the protection of all persons in the event of fire, for their evacuation to areas of refuge, and for their evacuation from the building when necessary.

18.7.1.2 All employees shall be periodically instructed and kept informed with respect to their duties under the plan required by 18.7.1.1.

18.7.1.3 A copy of the plan required by 18.7.1.1 shall be readily available at all times in the telephone operator’s location or at the security center.

18.7.1.4* Fire drills in health care occupancies shall include the transmission of a fire alarm signal and simulation of emergency fire conditions.

18.7.1.5 Infirn or bedridden patients shall not be required to be moved during drills to safe areas or to the exterior of the building.

18.7.1.6 Drills shall be conducted quarterly on each shift to familiarize facility personnel (nurses, interns, maintenance engineers, and administrative staff) with the signals and emergency action required under varied conditions.

18.7.1.7 When drills are conducted between 9:00 p.m. and 6:00 a.m. (2100 hours and 0600 hours), a coded announcement shall be permitted to be used instead of audible alarms.

18.7.1.8 Employees of health care occupancies shall be instructed in life safety procedures and devices.

18.7.2 Procedure in Case of Fire.

18.7.2.1* Protection of Patients.

18.7.2.1.1 For health care occupancies, the proper protection of patients shall require the prompt and effective response of health care personnel.

18.7.2.1.2 The basic response required of staff shall include the following:

1. Removal of all occupants directly involved with the fire emergency
2. Transmission of an appropriate fire alarm signal to warn other building occupants and summon staff
3. Confinement of the effects of the fire by closing doors to isolate the fire area
4. Relocation of patients as detailed in the health care occupancy’s fire safety plan

18.7.2.2 Fire Safety Plan. A written health care occupancy fire safety plan shall provide for all of the following:

1. Use of alarms
2. Transmission of alarms to fire department
(3) Emergency phone call to fire department
(4) Response to alarms
(5) Isolation of fire
(6) Evacuation of immediate area
(7) Evacuation of smoke compartment
(8) Preparation of floors and building for evacuation
(9) Extinguishment of fire

18.7.2.3 Staff Response.
18.7.2.3.1 All health care occupancy personnel shall be instructed in the use of and response to fire alarms.
18.7.2.3.2 All health care occupancy personnel shall be instructed in the use of the code phrase to ensure transmission of an alarm under any of the following conditions:
(1) When the individual who discovers a fire must immediately go to the aid of an endangered person
(2) During a malfunction of the building fire alarm system
18.7.2.3.3 Personnel hearing the code announced shall first activate the building fire alarm using the nearest manual fire alarm box and then shall execute immediately their duties as outlined in the fire safety plan.

18.7.3 Maintenance of Means of Egress.
18.7.3.1 Proper maintenance shall be provided to ensure the dependability of the method of evacuation selected.
18.7.3.2 Health care occupancies that find it necessary to lock means of egress doors shall, at all times, maintain an adequate staff qualified to release locks and direct occupants from the immediate danger area to a place of safety in case of fire or other emergency.

18.7.3.3* For smoke compartments having spaces not separated from the corridor by partitions, a written floor plan shall be provided to indicate the location of all required means of egress corridors in that smoke compartment.

18.7.4* Smoking. Smoking regulations shall be adopted and shall include not less than the following provisions:
(1) Smoking shall be prohibited in any room, ward, or individual enclosed space where flammable liquids, combustible gases, or oxygen is used or stored and in any other hazardous location, and such areas shall be posted with signs that read NO SMOKING or shall be posted with the international symbol for no smoking.
(2) In health care occupancies where smoking is prohibited and signs are prominently placed at all major entrances, secondary signs with language that prohibits smoking shall not be required.
(3) Smoking by patients classified as not responsible shall be prohibited.
(4) The requirement of 18.7.4(3) shall not apply where the patient is under direct supervision.
(5) Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted.
(6) Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted.

18.7.5 Furnishings, Mattresses, and Decorations.
18.7.5.1* Draperies, curtains, and other loosely hanging fabrics and films serving as furnishings or decorations in health care occupancies shall be in accordance with the provisions of 10.3.1 (see 18.3.5.11), and the following also shall apply:
(1) Such curtains shall include cubicle curtains.
(2) Such curtains shall not include curtains at showers and baths.

(3) Such draperies and curtains shall not include draperies and curtains at windows in patient sleeping rooms.

(4) Such draperies and curtains shall not include draperies and curtains in other rooms or areas where the draperies and curtains comply with both of the following:
   (a) Individual drapery or curtain panel area does not exceed 48 ft$^2$ (4.5 m$^2$)
   (b) Total area of drapery and curtain panels per room or area does not exceed 20 percent of the aggregate area of the wall on which they are located

18.7.5.2 Newly introduced upholstered furniture within health care occupancies shall comply with one of the following provisions:

(1) The furniture shall meet the criteria specified in 10.3.2.1 and 10.3.3.

(2) The furniture shall be in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

18.7.5.3 Reserved.

18.7.5.4 Newly introduced mattresses within health care occupancies shall comply with one of the following provisions:

(1) The mattresses shall meet the criteria specified in 10.3.2.2 and 10.3.4.

(2) The mattresses shall be in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

18.7.5.5 Reserved.

18.7.5.6 Combustible decorations shall be prohibited in any health care occupancy, unless one of the following criteria is met:

(1) They are flame-retardant or are treated with approved fire-retardant coating that is listed and labeled for application to the material to which it is applied.

(2) The decorations meet the requirements flame propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

(3) The decorations exhibit a heat release rate not exceeding 100 kW when tested in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source.

(4) The decorations, such as photographs, paintings, and other art, are attached directly to the walls, ceiling, and non-fire-rated doors in accordance with the following:
   (a) Decorations on non-fire-rated doors do not interfere with the operation or any required latching of the door and do not exceed the area limitations of 18.7.5.6(b), (c), or (d).
   (b) Decorations do not exceed 20 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is not protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.
   (c) Decorations do not exceed 30 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is protected throughout by an approved supervised automatic sprinkler system in accordance with Section 9.7.
   (d) Decorations do not exceed 50 percent of the wall, ceiling, and door areas inside patient sleeping rooms having a capacity not exceeding four persons, in a smoke compartment that is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

18.7.5.7 Soiled Linen and Trash Receptacles.

18.7.5.7.1 Soiled linen or trash collection receptacles shall not exceed 32 gal (121 L) in capacity and shall meet all of the following requirements:
(1) The average density of container capacity in a room or space shall not exceed 0.5 gal/ft\(^2\) (20.4 L/m\(^2\)).

(2) A capacity of 32 gal (121 L) shall not be exceeded within any 64 ft\(^2\) (6 m\(^2\)) area.

(3)* Mobile soiled linen or trash collection receptacles with capacities greater than 32 gal (121 L) shall be located in a room protected as a hazardous area when not attended.

(4) Container size and density shall not be limited in hazardous areas.

18.7.5.7.2* Containers used solely for recycling clean waste or for patient records awaiting destruction shall be permitted to be excluded from the requirements of 18.7.5.7.1 where all the following conditions are met:

(1) Each container shall be limited to a maximum capacity of 96 gal (363 L), except as permitted by 18.7.5.7.2(2) or (3).

(2)* Containers with capacities greater than 96 gal (363 L) shall be located in a room protected as a hazardous area when not attended.

(3) Container size shall not be limited in hazardous areas.

(4) Containers for combustibles shall be labeled and listed as meeting the requirements of FM Approval Standard 6921, *Containers for Combustible Waste*; however, such testing, listing, and labeling shall not be limited to FM Approvals.

18.7.5.7.3 The provisions of 10.3.9, applicable to containers for rubbish, waste, or linen, shall not apply.

18.7.6 Maintenance and Testing. See 4.6.12.

18.7.7 Engineered Smoke Control Systems.

18.7.7.1 New engineered smoke control systems shall be designed, installed, tested, and maintained in accordance with NFPA 92, *Standard for Smoke Control Systems*.

18.7.7.2 Test documentation shall be maintained on the premises at all times.

18.7.8* Portable Space-Heating Devices. Portable space-heating devices shall be prohibited in all health care occupancies, unless both of the following criteria are met:

(1) Such devices are permitted to be used only in nonsleeping staff and employee areas.

(2) The heating elements of such devices do not exceed 212°F (100°C).

18.7.9 Construction, Repair, and Improvement Operations.

18.7.9.1 Construction, repair, and improvement operations shall comply with 4.6.10.

18.7.9.2 The means of egress in any area undergoing construction, repair, or improvements shall be inspected daily for compliance with 7.1.10.1 and shall also comply with NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*.

### Chapter 19 Existing Health Care Occupancies

19.1 General Requirements.

19.1.1 Application.

19.1.1.1 General.

19.1.1.1.1* The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as health care occupancies, unless the authority having jurisdiction has determined equivalent safety has been provided in accordance with Section 1.4.

19.1.1.2 Administration. The provisions of Chapter 1, Administration, shall apply.

19.1.1.3 General. The provisions of Chapter 4, General, shall apply.

19.1.1.4 The requirements established by this chapter shall apply to all existing hospitals, nursing homes, and limited care facilities. The term *hospital*, wherever used in this Code, shall include general hospitals, psychiatric hospitals, and specialty hospitals. The term *nursing home*, wherever used in this Code, shall include nursing and convalescent homes, skilled nursing facilities, intermediate care facilities, and infirmaries in homes for the aged. Where requirements vary, the
specific subclass of health care occupancy that shall apply is named in the paragraph pertaining thereto. The requirements established by Chapter 21 shall apply to all existing ambulatory health care facilities. The operating features requirements established by Section 19.7 shall apply to all health care occupancies.

19.1.1.5 The health care facilities regulated by this chapter shall be those that provide sleeping accommodations for their occupants and are occupied by persons who are mostly incapable of self-preservation because of age, because of physical or mental disability, or because of security measures not under the occupants’ control.

19.1.1.6 Buildings, or sections of buildings, that primarily house patients who, in the opinion of the governing body of the facility and the governmental agency having jurisdiction, are capable of exercising judgment and appropriate physical action for self-preservation under emergency conditions shall be permitted to comply with chapters of the Code other than Chapter 19.

19.1.1.7* It shall be recognized that, in buildings housing certain patients, it might be necessary to lock doors and bar windows to confine and protect building inhabitants.

19.1.1.8 Buildings, or sections of buildings, that house older persons and that provide activities that foster continued independence but do not include services distinctive to health care occupancies (see 19.1.4.2), as defined in 3.3.188.7, shall be permitted to comply with the requirements of other chapters of this Code, such as Chapters 31 or 33.

19.1.1.9 Facilities that do not provide housing on a 24-hour basis for their occupants shall be classified as other occupancies and shall be covered by other chapters of this Code.

19.1.1.10* The requirements of this chapter shall apply based on the assumption that staff is available in all patient-occupied areas to perform certain fire safety functions as required in other paragraphs of this chapter.

19.1.2* Goals and Objectives. The goals and objectives of Sections 4.1 and 4.2 shall be met with due consideration for functional requirements, which are accomplished by limiting the development and spread of a fire emergency to the room of fire origin and reducing the need for occupant evacuation, except from the room of fire origin.

19.1.3 Total Concept.

19.1.3.1 All health care facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants.

19.1.3.2 Because the safety of health care occupants cannot be ensured adequately by dependence on evacuation of the building, their protection from fire shall be provided by appropriate arrangement of facilities; adequate, trained staff; and development of operating and maintenance procedures composed of the following:

1. Design, construction, and compartmentation
2. Provision for detection, alarm, and extinguishment
3. Fire prevention procedures and planning, training, and drilling programs for the isolation of fire, transfer of occupants to areas of refuge, or evacuation of the building

19.1.4 Additions, Conversions, Modernization, Renovation, and Construction Operations.

19.1.4.1 Additions. Additions shall be separated from any existing structure not conforming to the provisions within Chapter 19 by a fire barrier having not less than a 2-hour fire resistance rating and constructed of materials as required for the addition. (See 4.6.7 and 4.6.11.)

19.1.4.1.1 Communicating openings in dividing fire barriers required by 19.1.4.1 shall be permitted only in corridors and shall be protected by approved self-closing fire door assemblies. (See also Section 8.3.)

19.1.4.1.2 Doors in barriers required by 19.1.4.1 shall normally be kept closed, unless otherwise permitted by 19.1.4.1.3.

19.1.4.1.3 Doors shall be permitted to be held open if they meet the requirements of 19.2.2.2.7.
19.1.1.4.2 Changes of Use or Occupancy Classification. Changes of use or occupancy classification shall comply with 4.6.11, unless otherwise permitted by one of the following:

1. A change from a hospital to a nursing home or from a nursing home to a hospital shall not be considered a change in occupancy classification or a change in use.
2. A change from a hospital or nursing home to a limited care facility shall not be considered a change in occupancy classification or a change in use.
3. A change from a hospital or nursing home to an ambulatory health care facility shall not be considered a change in occupancy classification or a change in use.

19.1.1.4.3 Rehabilitation.

19.1.1.4.3.1 For purposes of the provisions of this chapter, the following shall apply:

1. A major rehabilitation shall involve the modification of more than 50 percent, or more than 4500 ft$^2$ (420 m$^2$), of the area of the smoke compartment.
2. A minor rehabilitation shall involve the modification of not more than 50 percent, and not more than 4500 ft$^2$ (420 m$^2$), of the area of the smoke compartment.

19.1.1.4.3.2 Work that is exclusively plumbing, mechanical, fire protection system, electrical, medical gas, or medical equipment work shall not be included in the computation of the modification area within the smoke compartment.

19.1.1.4.3.3* Where major rehabilitation is done in a nonsprinklered smoke compartment, the automatic sprinkler requirements of 18.3.5 shall apply to the smoke compartment undergoing the rehabilitation, and, in cases where the building is not protected throughout by an approved automatic sprinkler system, the requirements of 18.4.3.2, 18.4.3.3, and 18.4.3.8 shall also apply.

19.1.1.4.3.4* Where minor rehabilitation is done in a nonsprinklered smoke compartment, the requirements of 18.3.5.1 shall not apply, but, in such cases, the rehabilitation shall not reduce life safety below the level required for new buildings or below the level of the requirements of 18.4.3 for nonsprinklered smoke compartment rehabilitation. (See 4.6.7.)

19.1.1.4.4 Construction, Repair, and Improvement Operations. See 4.6.10.

19.1.2 Classification of Occupancy. See 6.1.5 and 19.1.4.2.

19.1.3 Multiple Occupancies.

19.1.3.1 Multiple occupancies shall be in accordance with 6.1.14.

19.1.3.2 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, provided both of the following are met:

1. The provision is not used for occupancy separations involving industrial and storage occupancies.
2. Smoke partitions serving as atrium walls are not permitted to serve as enclosures for hazardous areas.

19.1.3.23 Sections of health care facilities shall be permitted to be classified as other occupancies in accordance with the separated occupancies provisions of 6.1.14.4 and either 19.1.3.3-19.1.3.4 or 19.1.3.419.1.3.5.

19.1.3.34* Sections of health care facilities shall be permitted to be classified as other occupancies, provided that they meet all of the following conditions:

1. They are not intended to provide services simultaneously for four or more inpatients for purposes of housing, treatment, or customary access by inpatients incapable of self-preservation.
2. They are separated from areas of health care occupancies by construction having a minimum 2-hour fire resistance rating in accordance with Chapter 8.
(3) For other than previously approved occupancy separation arrangements, the entire building is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

19.1.3.45 Contiguous Non-Health Care Occupancies.

19.1.3.45.1* Ambulatory care facilities, medical clinics, and similar facilities that are contiguous to health care occupancies, but are primarily intended to provide outpatient services, shall be permitted to be classified as business occupancies or ambulatory health care facilities, provided that the facilities are separated from the health care occupancy by not less than 2-hour fire resistance–rated construction, and the facility is not intended to provide services simultaneously for four or more inpatients who are litterborne.

19.1.3.45.2 Ambulatory care facilities, medical clinics, and similar facilities that are contiguous to health care occupancies shall be permitted to be used for diagnostic and treatment services of inpatients who are capable of self-preservation.

19.1.3.46 Where separated occupancies provisions are used in accordance with either 19.1.3.3 or 19.1.3.419.1.3.5, the most stringent construction type shall be provided throughout the building, unless a 2-hour separation is provided in accordance with 8.2.1.3, in which case the construction type shall be determined as follows:

(1) The construction type and supporting construction of the health care occupancy shall be based on the story on which it is located in the building in accordance with the provisions of 19.1.6 and Table 19.1.6.1.

(2) The construction type of the areas of the building enclosing the other occupancies shall be based on the applicable occupancy chapters of this Code.

19.1.3.67 All means of egress from health care occupancies that traverse non-health care spaces shall conform to the requirements of this Code for health care occupancies, unless otherwise permitted by 19.1.3.719.1.3.8.

19.1.3.78 Exit through a horizontal exit into other contiguous occupancies that do not conform to health care egress provisions, but that do comply with requirements set forth in the appropriate occupancy chapter of this Code, shall be permitted, provided that both of the following criteria apply:

(1) The occupancy does not contain high hazard contents.

(2) The horizontal exit complies with the requirements of 19.2.2.5.

19.1.3.89 Egress provisions for areas of health care facilities that correspond to other occupancies shall meet the corresponding requirements of this Code for such occupancies, and, where the clinical needs of the occupant necessitate the locking of means of egress, staff shall be present for the supervised release of occupants during all times of use.

19.1.3.910 Auditoriums, chapels, staff residential areas, or other occupancies provided in connection with health care facilities shall have means of egress provided in accordance with other applicable sections of this Code.

19.1.3.1011 Any area with a hazard of contents classified higher than that of the health care occupancy and located in the same building shall be protected as required by 19.3.2.

19.1.3.1112 Non-health care–related occupancies classified as containing high hazard contents shall not be permitted in buildings housing health care occupancies.

19.1.4 Definitions.

19.1.4.1 General. For definitions, see Chapter 3, Definitions.

19.1.4.2 Special Definitions. The following list of special terms used in this chapter follows:

(1) Ambulatory Health Care Occupancy. See 3.3.188.1.(See 3.3.188.1.)

(2) Deep-fat Frying. A cooking method that involves fully immersing food in hot oil.
19.1.5 Classification of Hazard of Contents. The classification of hazard of contents shall be as defined in Section 6.2.

19.1.6 Minimum Construction Requirements.

19.1.6.1 Health care occupancies shall be limited to the building construction types specified in Table 19.1.6.1, unless otherwise permitted by 19.1.6.2 through 19.1.6.7. (See 8.2.1.)

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</table>

X: Permitted. NP: Not permitted.
The total number of stories of the building is to be determined as follows:
(1) The total number of stories is to be counted starting with the level of exit discharge and ending with the highest occupiable story of the building.
(2) Stories below the level of exit discharge are not counted as stories.
(3) Interstitial spaces used solely for building or process systems directly related to the level above or below are not considered a separate story.

(4) A mezzanine in accordance with 8.6.9 is not counted as a story.

†Sprinklered throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.  (See 19.3.5.)

‡Basements are not counted as stories.

**19.1.6.2** Any building of Type I(442), Type I(332), Type II(222), or Type II(111) construction shall be permitted to include roofing systems involving combustible supports, decking, or roofing, provided that all of the following criteria are met:


2. The roof shall be separated from all occupied portions of the building by a noncombustible floor assembly that includes not less than 2½ in. (63 mm) of concrete or gypsum fill.

3. The attic or other space shall be either unoccupied or protected throughout by an approved automatic sprinkler system.

**19.1.6.3** Any building of Type I(442), Type I(332), Type II(222), or Type II(111) construction shall be permitted to include roofing systems involving combustible supports, decking, or roofing, provided that all of the following criteria are met:


2. The roof/ceiling assembly shall be constructed with fire-retardant-treated wood meeting the requirements of NFPA 220, *Standard on Types of Building Construction*.

3. The roof/ceiling assembly shall have the required fire resistance rating for the type of construction.

**19.1.6.4** Interior nonbearing walls in buildings of Type I or Type II construction shall be constructed of noncombustible or limited-combustible materials, unless otherwise permitted by **19.1.6.5**.

**19.1.6.5** Interior nonbearing walls required to have a minimum 2-hour fire resistance rating of 2 hours or less shall be permitted to be fire-retardant-treated wood enclosed within noncombustible or limited-combustible materials, provided that such walls are not used as shaft enclosures.

**19.1.6.6** Fire-retardant-treated wood that serves as supports for the installation of fixtures and equipment shall be permitted to be installed behind noncombustible or limited-combustible sheathing.

**19.1.6.7** Each exterior wall of frame construction and all interior stud partitions shall be firestopped to cut off all concealed draft openings, both horizontal and vertical, between any cellar or basement and the first floor, and such firestopping shall consist of wood not less than 2 in. (51 mm) (nominal) thick or shall be of noncombustible material.

**19.1.7 Occupant Load.** 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.

**19.2 Means of Egress Requirements.**

**19.2.1 General.** Every aisle, passageway, corridor, exit discharge, exit location, and access shall be in accordance with Chapter 7, unless otherwise modified by **19.2.2** through **19.2.11**.

**19.2.2 Means of Egress Components.**
19.2.2.1 Components Permitted. Components of means of egress shall be limited to the types described in 19.2.2.2 through 19.2.2.10.

19.2.2.2 Doors.
19.2.2.2.1 Doors complying with 7.2.1 shall be permitted.
19.2.2.2.2 Locks shall not be permitted on patient sleeping room doors, unless otherwise permitted by one of the following:
   (1) Key-locking devices that restrict access to the room from the corridor and that are operable only by staff from the corridor side shall be permitted, provided that such devices do not restrict egress from the room.
   (2) Locks complying with 19.2.2.5 shall be permitted.

19.2.2.3 Doors not located in a required means of egress shall be permitted to be subject to locking.

19.2.2.4 Doors within a required means of egress shall not be equipped with a latch or lock that requires the use of a tool or key from the egress side, unless otherwise permitted by one of the following:
   (1) Locks complying with 19.2.2.5 shall be permitted.
   (2)* Delayed-egress locks complying with 7.2.1.6.1 shall be permitted.
   (3)* Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted.
   (4) Elevator lobby exit access door locking in accordance with 7.2.1.6.3 shall be permitted.
   (5) Approved existing door-locking installations shall be permitted.

19.2.2.2.5 Door-locking arrangements shall be permitted in accordance with either 19.2.2.5.1 or 19.2.2.5.2.

19.2.2.2.5.1* Door-locking arrangements shall be permitted where the clinical needs of patients require specialized security measures or where patients pose a security threat, provided that staff can readily unlock doors at all times in accordance with 19.2.2.6.

19.2.2.2.5.2* Door-locking arrangements shall be permitted where patient special needs require specialized protective measures for their safety, provided that all of the following are met:
   (1) Staff can readily unlock doors at all times in accordance with 19.2.2.6.
   (2) A total (complete) smoke detection system is provided throughout the locked space in accordance with 9.6.2.9, or locked doors can be remotely unlocked at an approved, constantly attended location within the locked space.
   (3)* The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.1.
   (4) The locks are electrical locks that fail safely so as to release upon loss of power to the device.
   (5) The locks release by independent activation of each of the following:
      (a) Activation of the smoke detection system required by 19.2.2.5.2(2)
      (b) Waterflow in the automatic sprinkler system required by 19.2.2.5.2(3)

19.2.2.2.6 Doors that are located in the means of egress and are permitted to be locked under other provisions of 19.2.2.5 shall comply with all of the following:
   (1) Provisions shall be made for the rapid removal of occupants by means of one of the following:
      (a) Remote control of locks
      (b) Keying of all locks to keys carried by staff at all times
      (c) Other such reliable means available to the staff at all times
   (2) Only one locking device shall be permitted on each door.
   (3) More than one lock shall be permitted on each door, subject to approval of the authority having jurisdiction.
19.2.2.2.7* Doors permitted to be locked in accordance with 19.2.2.2.5.1 shall be permitted to have murals on the egress doors to disguise the doors provided all of the following are met:

(1) Staff can readily unlock the doors at all times in accordance with 19.2.2.2.6.
(2) The door-releasing hardware, where provided, is readily accessible for staff use.
(3) Door leaves, windows and door hardware, other than door-releasing hardware, shall be permitted to be covered by the murals.
(4) The murals shall not impair the operation of the doors.
(5) The affected smoke compartments are protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7.

19.2.2.2.78* Any door in an exit passageway, stairway enclosure, horizontal exit, smoke barrier, or hazardous area enclosure shall be permitted to be held open only by an automatic release device that complies with 7.2.1.8.2. The automatic sprinkler system, if provided, and the fire alarm system, and the systems required by 7.2.1.8.2, shall be arranged to initiate the closing action of all such doors throughout the smoke compartment or throughout the entire facility.

19.2.2.2.89 Where doors in a stair enclosure are held open by an automatic release device as permitted in 19.2.2.2.719.2.2.2.8, initiation of a door-closing action on any level shall cause all doors at all levels in the stair enclosure to close.

19.2.2.910* Existing health care occupancies shall be exempt from the re-entry provisions of 7.2.1.5.8.

19.2.2.1011 Horizontal-sliding doors shall be permitted in accordance with 19.2.2.1011.1 or 19.2.2.1011.2.

19.2.2.1011.1 Horizontal-sliding doors Special-purpose horizontally sliding accordion or folding door assemblies, as permitted by 7.2.1.14, that are not automatic-closing shall be limited to a single leaf and shall have a latch or other mechanism that ensures that the doors will not rebound into a partially open position if forcefully closed.

19.2.2.1011.2 Horizontal-sliding doors serving an occupant load of fewer than 10 shall be permitted, provided that all of the following criteria are met:

(1) The area served by the door has no high hazard contents.
(2) The door is readily operable from either side without special knowledge or effort.
(3) The force required to operate the door in the direction of door travel is not more than 30 lbf (133 N) to set the door in motion and is not more than 15 lbf (67 N) to close the door or open it to the minimum required width.
(4) The door assembly complies with any required fire protection rating and, where rated, is self-closing or automatic-closing by means of smoke detection in accordance with 7.2.1.8 and is installed in accordance with NFPA 80, Standard for Fire Doors and Other Opening Protectives.
(5) Where corridor doors are required to latch, the doors are equipped with a latch or other mechanism that ensures that the doors will not rebound into a partially open position if forcefully closed.

19.2.2.3 Stairs. Stairs complying with 7.2.2 shall be permitted.

19.2.2.4 Smokeproof Enclosures. Smokeproof enclosures complying with 7.2.3 shall be permitted.

19.2.2.5 Horizontal Exits. Horizontal exits complying with 7.2.4 and the modifications of 19.2.2.5.1 through 19.2.2.5.4 shall be permitted.

19.2.2.5.1 Accumulation space shall be provided in accordance with 19.2.2.5.1.1 and 19.2.2.5.1.2.
19.2.2.5.1.1 Not less than 30 net ft$^2$ (2.8 net m$^2$) per patient in a hospital or nursing home, or not less than 15 net ft$^2$ (1.4 net m$^2$) per resident in a limited care facility, shall be provided within the aggregated area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other similar areas on each side of the horizontal exit.

19.2.2.5.1.2 On stories not housing bedridden or litterborne patients, not less than 6 net ft$^2$ (0.56 net m$^2$) per occupant shall be provided on each side of the horizontal exit for the total number of occupants in adjoining compartments.

19.2.2.5.2 The total egress capacity of the other exits (stairs, ramps, doors leading outside the building) shall not be reduced below one-third of that required for the entire area of the building.

19.2.2.5.3* A door in a horizontal exit shall not be required to swing with egress travel as specified in 7.2.4.3.8(1).

19.2.2.5.4 Door openings in horizontal exits shall be protected by one of the following methods:

1. Such door openings shall be protected by a swinging door providing a clear width of not less than 32 in. (810 mm).

2. Such door openings shall be protected by a horizontal sliding door special-purpose horizontally sliding accordion or folding door assemblies that complies with 7.2.1.14 and provides a clear width of not less than 32 in. (810 mm).

3. Such door openings shall be protected by an existing 34 in. (865 mm) swinging door.

19.2.2.6 Ramps.

19.2.2.6.1 Ramps complying with 7.2.5 shall be permitted.

19.2.2.6.2 Ramps enclosed as exits shall be of sufficient width to provide egress capacity in accordance with 19.2.3.

19.2.2.7 Exit Passageways. Exit passageways complying with 7.2.6 shall be permitted.

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

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

19.2.2.10 Areas of Refuge. Areas of refuge used as part of a required accessible means of egress shall comply with 7.2.12

19.2.3 Capacity of Means of Egress.

19.2.3.1 The capacity of means of egress shall be in accordance with Section 7.3.

19.2.3.2 The capacity of means of egress providing travel by means of stairs shall be 0.6 in. (15 mm) per person, and the capacity of means of egress providing horizontal travel (without stairs) by means such as doors, ramps, or horizontal exits shall be $\frac{1}{2}$ in. (13 mm) per person, unless otherwise permitted by 19.2.3.3.

19.2.3.3 The capacity of means of egress in health care occupancies protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7 shall be 0.3 in. (7.6 mm) per person for travel by means of stairs and 0.2 in. (5 mm) per person for horizontal travel without stairs.

19.2.3.4* Any required aisle, corridor, or ramp shall be not less than 48 in. (1220 mm) in clear width where serving as means of egress from patient sleeping rooms, unless otherwise permitted by one of the following:

1. Aisles, corridors, and ramps in adjunct areas not intended for the housing, treatment, or use of inpatients shall be not less than 44 in. (1120 mm) in clear and unobstructed width.

2. Where corridor width is at least 6 ft (1830 mm), noncontinuous projections not more than 6 in. (150 mm) from the corridor wall, above the handrail height, shall be permitted.

3. Exit access within a room or suite of rooms complying with the requirements of 19.2.5 shall be permitted.

(4) Projections into the required width shall be permitted for wheeled equipment, provided that all of the following conditions are met:

(a) The wheeled equipment does not reduce the clear unobstructed corridor width to less than 60 in. (1525 mm).

(b) The health care occupancy fire safety plan and training program address the relocation of the wheeled equipment during a fire or similar emergency.

(c)* The wheeled equipment is limited to the following:
   i. Equipment in use and carts in use
   ii. Medical emergency equipment not in use
   iii. Patient lift and transport equipment

(5)* Where the corridor width is at least 8 ft (2440 mm), projections into the required width shall be permitted for fixed furniture, provided that all of the following conditions are met:

(a) The fixed furniture is securely attached to the floor or to the wall.

(b) The fixed furniture does not reduce the clear unobstructed corridor width to less than 6 ft (1830 mm), except as permitted by 19.2.3.4(2).

(c) The fixed furniture is located only on one side of the corridor.

(d) The fixed furniture is grouped such that each grouping does not exceed an area of 50 ft² (4.6 m²).

(e) The fixed furniture groupings addressed in 19.2.3.4(5)(d) are separated from each other by a distance of at least 10 ft (3050 mm).

(f)* The fixed furniture is located so as to not obstruct access to building service and fire protection equipment.

(g) Corridors throughout the smoke compartment are protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4, or the fixed furniture spaces are arranged and located to allow direct supervision by the facility staff from a nurses’ station or similar space.

(h) The smoke compartment is protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.8.

19.2.3.5 The aisle, corridor, or ramp shall be arranged to avoid any obstructions to the convenient removal of nonambulatory persons carried on stretchers or on mattresses serving as stretchers.

19.2.3.6 The minimum clear width for doors in the means of egress from hospitals, nursing homes, limited care facilities, psychiatric hospital sleeping rooms, and diagnostic and treatment areas, such as x-ray, surgery, or physical therapy, shall be not less than 32 in. (810 mm) wide.

19.2.3.7 The requirement of 19.2.3.6 shall not apply where otherwise permitted by the following:

(1) Existing 34 in. (865 mm) doors shall be permitted.

(2) Existing 28 in. (710 mm) corridor doors in facilities where the fire plans do not require evacuation by bed, gurney, or wheelchair shall be permitted.

19.2.4 Number of Means of Egress.

19.2.4.1 The number of means of egress shall be in accordance with 7.4.1.1 and 7.4.1.3 through 7.4.1.6.

19.2.4.2 Not less than two exits shall be provided on every story.

19.2.4.3 Not less than two separate exits shall be accessible from every part of every story.

19.2.4.4* Not less than two exits shall be accessible from each smoke compartment, and egress shall be permitted through an adjacent compartment(s), provided that the two required egress paths are arranged so that both do not pass through the same adjacent smoke compartment.

19.2.5 Arrangement of Means of Egress.

19.2.5.1 General. Arrangement of means of egress shall comply with Section 7.5.
19.2.5.2* Dead-End Corridors. Existing dead-end corridors not exceeding 30 ft (9.1 m) shall be permitted. Existing dead-end corridors exceeding 30 ft (9.1 m) shall be permitted to continue in use if it is impractical and unfeasible to alter them.

19.2.5.3 Reserved.

19.2.5.4* Intervening Rooms or Spaces. Every corridor shall provide access to not less than two approved exits in accordance with Sections 7.4 and 7.5 without passing through any intervening rooms or spaces other than corridors or lobbies.

19.2.5.5 Two Means of Egress.

19.2.5.5.1 Sleeping rooms of more than 1000 ft$^2$ (93 m$^2$) shall have not less than two exit access doors remotely located from each other.

19.2.5.5.2 Non-sleeping rooms of more than 2500 ft$^2$ (230 m$^2$) shall have not less than two exit access doors remotely located from each other.

19.2.5.6 Corridor Access.

19.2.5.6.1* Every habitable room shall have an exit access door leading directly to an exit access corridor, unless otherwise provided in 19.2.5.6.2, 19.2.5.6.3, and 19.2.5.6.4.

19.2.5.6.2 Exit access from a patient sleeping room with not more than eight patient beds shall be permitted to pass through one intervening room to reach an exit access corridor, provided that the intervening room is equipped with an approved automatic smoke detection system in accordance with Section 9.6, or the furnishings and furniture, in combination with all other combustibles within the area, are of such minimum quantity and arrangements that a fully developed fire is unlikely to occur.

19.2.5.6.3 Rooms having an exit door opening directly to the outside from the room at the finished ground level shall not be required to have an exit access door leading directly to an exit access corridor.

19.2.5.6.4 Rooms within suites complying with 19.2.5.7 shall not be required to have an exit access door leading directly to an exit access corridor.

19.2.5.7 Suites.

19.2.5.7.1 General.

19.2.5.7.1.1 Suite Permission. Suites complying with 19.2.5.7 shall be permitted to be used to meet the corridor access requirements of 19.2.5.6.

19.2.5.7.1.2* Suite Separation. Suites shall be separated from the remainder of the building, and from other suites, by one of the following:

1. Walls and doors meeting the requirements of 19.3.6.2 through 19.3.6.5
2. Existing approved barriers and doors that limit the transfer of smoke

19.2.5.7.1.3 Suite Hazardous Contents Areas.

(A)* Intervening rooms shall not be hazardous areas as defined by 19.3.2.

(B) Hazardous areas within a suite shall be separated from the remainder of the suite in accordance with 19.3.2.1, unless otherwise provided in 19.2.5.7.1.3(C) or 19.2.5.7.1.3(D).

(C)* Hazardous areas within a suite shall not be required to be separated from the remainder of the suite where complying with both of the following:

1. The suite is primarily a hazardous area.
2. The suite is separated from the rest of the health care facility as required for a hazardous area by 19.3.2.1.

(D)* Spaces containing sterile surgical materials limited to a one-day supply in operating suites or similar spaces that are sprinklered in accordance with 19.3.5.7 shall be permitted to be open to the remainder of the suite without separation.

19.2.5.7.1.4 Suite Subdivision. The subdivision of suites shall be by means of noncombustible or limited-combustible partitions or partitions constructed with fire-retardant-treated wood enclosed with
noncombustible or limited-combustible materials, and such partitions shall not be required to be fire rated.

**19.2.5.7.2 Sleeping Suites.** Sleeping suites shall be in accordance with the following:

1. Sleeping suites for patient care shall comply with the provisions of 19.2.5.7.2.1 through 19.2.5.7.2.4.

2. Sleeping suites not for patient care shall comply with the provisions of 19.2.5.7.4.

### 19.2.5.7.2.1 Sleeping Suite Arrangement Supervision.

(A)* Occupants of habitable rooms within sleeping suites shall have exit access to a corridor complying with 19.3.6, or to a horizontal exit, directly from the suite.

(B) Where two or more exit access doors are required from the suite by 19.2.5.5.1, one of the exit access doors shall be permitted to be directly to an exit stair, exit passageway, or exit door to the exterior.

(C) (A)* Sleeping suites shall be provided with constant staff supervision within the suite.

(D) (B)* Sleeping suites shall be arranged in accordance with one of the following:

1. Patient sleeping rooms within sleeping suites shall provide one of the following:
   (a) The patient sleeping rooms shall be arranged to allow for direct supervision from a normally attended location within the suite, such as is provided by glass walls, and cubicle curtains shall be permitted.
   (b) Any patient sleeping rooms without the direct supervision required by 19.2.5.7.2.1 (D) (B) (1) (a) shall be provided with smoke detection in accordance with Section 9.6 and 19.3.4.
2. Sleeping suites shall be provided with a total (complete) coverage (complete) automatic smoke detection system in accordance with 9.6.2.9 and 19.3.4.

### 19.2.5.7.2.2 Sleeping Suite Number of Means of Egress.

(A)* Sleeping suites shall have exit access to a corridor complying with 19.3.6 or to a horizontal exit, directly from the suite.

(B) Sleeping suites of more than 1000 ft\(^2\) (93 m\(^2\)) shall have not less than two exit access doors remotely located from each other.

(C)* One means of egress from the suite shall be directly to a corridor complying with 19.3.6.

(C)* For suites requiring two means of egress exit access doors, one means of egress of the exit access doors from the suite shall be permitted to be into one of the following:

1. An exit stair
2. An exit passageway
3. An exit door to the exterior
4. Another suite, provided that the separation between the suites complies with the corridor requirements of 19.3.6.2 through 19.3.6.5.

### 19.2.5.7.2.3 Sleeping Suite Maximum Size.

(A) Sleeping suites shall not exceed 5000 ft\(^2\) (460 m\(^2\)), unless otherwise provided in 19.2.5.7.2.3(B) or 19.2.5.7.2.3(C).

(B) Sleeping suites shall not exceed 7500 ft\(^2\) (700 m\(^2\)) where the smoke compartment is protected throughout by one of the following:

1. Approved electrically supervised sprinkler system in accordance with 19.3.5.7 and total (complete) coverage (complete) automatic smoke detection in accordance with 9.6.2.9 and 19.3.4
2. Approved electrically supervised sprinkler system protection complying with 19.3.5.8

(C) Sleeping suites greater than 7500 ft\(^2\) (700 m\(^2\)), and not exceeding 10,000 ft\(^2\) (930 m\(^2\)), shall be permitted where all of the following are provided in the suite:

1. Direct visual supervision in accordance with 19.2.5.7.2.1 (D) (B) (1) (a)
19.2.5.7.2.4 Sleeping Suite Travel Distance.

A) Travel distance between any point in a sleeping suite and an exit access corridor door or a horizontal exit door from that suite shall not exceed 100 ft (30 m).

B) Travel distance between any point in a sleeping suite and an exit shall not exceed the following:
1. 150 ft (46 m) if the building is not protected throughout by an approved electrically supervised sprinkler system complying with 19.3.5.7
2. 200 ft (61 m) if the building is protected throughout by an approved electrically supervised sprinkler system complying with 19.3.5.7

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19.2.5.7.3 Patient Care Non-Sleeping Suites.

Non-sleeping suites shall be in accordance with the following:

1. Non-sleeping suites for patient care shall comply with the provisions of 19.2.5.7.3.1 through 19.2.5.7.3.4.
2. Non-sleeping suites not for patient care shall comply with the provisions of 19.2.5.7.4.

19.2.5.7.3.1 Patient Care Non-Sleeping Suite Arrangement.

A) Occupants of habitable rooms within non-sleeping suites shall have exit access to a corridor complying with 19.3.6, or to a horizontal exit, directly from the suite.

B) Where two or more exit access doors are required from the suite by 19.2.5.5.2, one of the exit access doors shall be permitted to be directly to an exit stair, exit passageway, or exit door to the exterior.

19.2.5.7.3.2 Patient Care Non-Sleeping Suite Number of Means of Egress.

A) Patient care non-sleeping suites shall have exit access to a corridor complying with 19.3.6 or to a horizontal exit, directly from the suite.

B) Non-sleeping Patient care non-sleeping suites of more than 2500 ft² (230 m²) shall have not less than two exit access doors remotely located from each other.

B* One means of egress from the suite shall be directly to a corridor complying with 19.3.6.

C) For suites requiring two means of egress, one means of egress from the suite shall be permitted to be into another exit access doors, one of the exit access doors shall be permitted to be to one of the following:

1. An exit stair
2. An exit passageway
3. An exit door to the exterior
4. Another suite, provided that the separation between the suites complies with the corridor requirements of 19.3.6.2 through 19.3.6.5.

19.2.5.7.3 Non-Sleeping Suite Maximum Size.

Non-sleeping suites shall not exceed 10,000 ft² (930 m²), unless otherwise provided in 19.2.5.7.3.2(A) or 19.2.5.7.3.2(B).

A) Non-sleeping suites greater than 10,000 ft² (930 m²) and not exceeding 12,500 ft² (1161 m²) shall be permitted where the smoke compartment is protected throughout by one of the following:
(1) Approved electrically supervised sprinkler system in accordance with 19.3.5.7 and total coverage
(2) Approved electrically supervised sprinkler system in accordance with 19.3.5.7 and total coverage
(3) Approved electrically supervised sprinkler system protection complying with 19.3.5.8
(4) Non-sleeping suites greater than 12,500 ft² (1161 m²) and not exceeding 15,000 ft² (1394 m²)
shall be permitted where both of the following are provided in the suite:
(1) Total coverage (complete) coverage automatic smoke detection in accordance with 9.6.2.9 and 19.3.4
(2) Approved electrically supervised sprinkler system protection complying with 19.3.5.8

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19.2.5.7.3.3 Patient Care Non-Sleeping Suite Travel Distance.

(A) Travel distance within a non-sleeping suite to an exit access corridor door or a horizontal exit door from the suite shall not exceed 100 ft (30 m).
(B) Travel distance between any point in a non-sleeping suite and an exit shall not exceed the following:
   (1) 150 ft (46 m) if the building is not protected throughout by an approved electrically supervised sprinkler system complying with 19.3.5.7
   (2) 200 ft (61 m) if the building is protected throughout by an approved electrically supervised sprinkler system complying with 19.3.5.7

19.2.5.7.4 Non-Patient-Care Suites. The egress provisions for non-patient-care suites shall be in accordance with the primary use and occupancy of the space.

19.2.6 Travel Distance to Exits.

19.2.6.1 Travel distance shall be measured in accordance with Section 7.6.

19.2.6.2 Travel distance shall comply with 19.2.6.2.1 through 19.2.6.2.4.

19.2.6.2.1 The travel distance between any point in a room and an exit shall not exceed 150 ft (46 m), unless otherwise permitted by 19.2.6.2.2.

19.2.6.2.2 The maximum travel distance specified in 19.2.6.2.1 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 19.3.5.7.

19.2.6.2.3 The travel distance between any point in a health care sleeping room and an exit access door in that room shall not exceed 50 ft (15 m).

19.2.6.2.4 The travel distance within suites shall be in accordance with 19.2.5.7.

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

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

19.2.9 Emergency Lighting.

19.2.9.1 Emergency lighting shall be provided in accordance with Section 7.9.

19.2.9.2 Reserved.

19.2.10 Marking of Means of Egress.

19.2.10.1 Means of egress shall have signs in accordance with Section 7.10, unless otherwise permitted by 19.2.10.2, 19.2.10.3, or 19.2.10.4.

19.2.10.2 Where the path of egress travel is obvious, signs shall not be required in one-story buildings with an occupant load of fewer than 30 persons.

19.2.10.3 Where the path of egress travel is obvious, signs shall not be required at gates in outside secured areas.
19.2.10.4 Access to exits within rooms or sleeping suites shall not be required to be marked where staff is responsible for relocating or evacuating occupants.

19.2.11 Special Means of Egress Features. (Reserved)

19.3 Protection.

19.3.1 Protection of Vertical Openings. Any vertical opening shall be enclosed or protected in accordance with Section 8.6, unless otherwise modified by 19.3.1.1 through 19.3.1.8.

19.3.1.1 Where enclosure is provided, the construction shall have not less than a 1-hour fire resistance rating.

19.3.1.2 Unprotected vertical openings in accordance with 8.6.9.1 shall be permitted.

19.3.1.3 Subparagraph 8.6.7(1)(b) shall not apply to patient sleeping and treatment rooms.

19.3.1.4 Multilevel patient sleeping areas in psychiatric facilities shall be permitted without enclosure protection between levels, provided that all of the following conditions are met:

   (1) The entire normally occupied area, including all communicating floor levels, is sufficiently open and unobstructed so that a fire or other dangerous condition in any part is obvious to the occupants or supervisory personnel in the area.

   (2) The egress capacity provides simultaneously for all the occupants of all communicating levels and areas, with all communicating levels in the same fire area being considered as a single floor area for purposes of determination of required egress capacity.

   (3) The height between the highest and lowest finished floor levels does not exceed 13 ft (3960 mm), and the number of levels is permitted to be unrestricted.

19.3.1.5 Unprotected openings in accordance with 8.6.6 shall not be permitted.

19.3.1.6 Where a full enclosure of a stairway that is not a required exit is impracticable, the required enclosure shall be permitted to be limited to that necessary to prevent a fire originating in any story from spreading to any other story.

19.3.1.7 A door in a stair enclosure shall be self-closing and shall normally be kept in the closed position, unless otherwise permitted by 19.3.1.8.

19.3.1.8 Doors in stair enclosures shall be permitted to be held open under the conditions specified by 19.2.2.2.7 and 19.2.2.2.8.

19.3.2 Protection from Hazards.

19.3.2.1 Hazardous Areas. Any hazardous areas shall be safeguarded by a fire barrier having a 1-hour fire resistance rating or shall be provided with an automatic extinguishing system in accordance with 8.7.1.

19.3.2.1.1 An automatic extinguishing system, where used in hazardous areas, shall be permitted to be in accordance with 19.3.5.9.

19.3.2.1.2* Where the sprinkler option of 19.3.2.1 is used, the areas shall be separated from other spaces by smoke partitions in accordance with Section 8.4.

19.3.2.1.3 The doors shall be self-closing or automatic-closing.

19.3.2.1.4 Doors in rated enclosures shall be permitted to have nonrated, factory- or field-applied protective plates extending not more than 48 in. (1220 mm) above the bottom of the door.

19.3.2.1.5 Hazardous areas shall include, but shall not be restricted to, the following:

   (1) Boiler and fuel-fired heater rooms

   (2) Central/bulk laundries larger than 100 ft² (9.3 m²)

   (3) Paint shops

   (4) Repair shops

   (5) Rooms with soiled linen in volume exceeding 64 gal (242 L)

   (6) Rooms with collected trash in volume exceeding 64 gal (242 L)
(7) Rooms or spaces larger than 50 ft$^2$ (4.6 m$^2$), including repair shops, used for storage of combustible supplies and equipment in quantities deemed hazardous by the authority having jurisdiction.

(8) Laboratories employing flammable or combustible materials in quantities less than those that would be considered a severe hazard.

**19.3.2.2* Laboratories.** Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered as a severe hazard shall be in accordance with Section 8.7 and the provisions of NFPA 99, *Health Care Facilities Code*, applicable to administration, maintenance, and testing.

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**19.3.2.3 Anesthetizing Locations.** Anesthetizing locations shall be in accordance with Section 8.7 and the provisions of NFPA 99, *Health Care Facilities Code*, applicable to administration, maintenance, and testing. **Hyperbaric Chambers.** Health care occupancies housing hyperbaric chambers shall comply with 8.7.5.

**19.3.2.4 Medical Gas.** Medical gas storage and administration areas shall be in accordance with Section 8.7 and the provisions of NFPA 99, *Health Care Facilities Code*, applicable to administration, maintenance, and testing.

**19.3.2.5 Cooking Facilities.**

**19.3.2.5.1** Cooking facilities shall be protected in accordance with 9.2.3, unless otherwise permitted by 19.3.2.5.2, 19.3.2.5.3, or 19.3.2.5.4.

**19.3.2.5.2* Where residential cooking equipment is used for food warming or limited cooking, the equipment shall not be required to be protected in accordance with 9.2.3, and the presence of the equipment shall not require the area to be protected as a hazardous area.

**19.3.2.5.3* Within a smoke compartment, where residential or commercial cooking equipment is used to prepare meals for 30 or fewer persons, one cooking facility shall be permitted to be open to the corridor, provided that all of the following conditions are met:

1. The portion of the health care facility served by the cooking facility is limited to 30 beds and is separated from other portions of the health care facility by a smoke barrier constructed in accordance with 19.3.7.3, 19.3.7.6, and 19.3.7.8.

2. The cooktop or range is equipped with a range hood of a width at least equal to the width of the cooking surface, with grease baffles or other grease-collecting and clean-out capability.

3. The hood systems have a minimum airflow of 500 cfm (14,000 L/min).

4. The hood systems that are not ducted to the exterior additionally have a charcoal filter to remove smoke and odor.

5. The cooktop or range complies with all of the following:

   a. The cooktop or range is protected with a fire suppression system listed in accordance with UL ANSI/UL 300, *Standard for Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment*, or is tested and meets all requirements of UL 300A, *Extinguishing System Units for Residential Range Top Cooking Surfaces*, in accordance with the applicable testing document's scope.

   b. A manual release of the extinguishing system is provided in accordance with Section 10.5 of NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, Section 10.5.

   c. An interlock is provided to turn off all sources of fuel and electrical power to the cooktop or range when the suppression system is activated.
The use of solid fuel for cooking is prohibited.

Deep-fat frying is prohibited.

Portable fire extinguishers in accordance with NFPA 96 are located in all kitchen areas.

A switch meeting all of the following is provided:

(a) A locked switch, or a switch located in a restricted location, is provided within the cooking facility that deactivates the cooktop or range.

(b) The switch is used to deactivate the cooktop or range whenever the kitchen is not under staff supervision.

(c) The switch is on a timer, not exceeding a 120-minute capacity, that automatically deactivates the cooktop or range, independent of staff action.

Procedures for the use, inspection, testing, and maintenance of the cooking equipment are in accordance with Chapter 11 of NFPA 96 and the manufacturer’s instructions and are followed.

Not less than two AC-powered photoelectric smoke alarms with battery backup, interconnected in accordance with 9.6.2.10.3, and equipped with a silence feature, and in accordance with NFPA 72, National Fire Alarm and Signaling Code, are located not closer than 20 ft (6.1 m) and not further than 25 ft (7.6 m) from the cooktop or range.

The smoke alarms required by 19.3.2.5.3(11) are permitted to be located outside the kitchen area where such placement is necessary for compliance with the 20-ft (7.6-m) minimum distance criterion.

A single system smoke detector is permitted to be installed in lieu of the smoke alarms required in 19.3.2.5.3(11) provided the following criteria are met:

(a) The detector is located not closer than 20 ft (6.1 m) and not further than 25 ft (7.6 m) from the cooktop or range.

(b) The detector is permitted to initiate a local audible alarm signal only.

(c) The detector is not required to initiate a building-wide occupant notification signal.

(d) The detector is not required to notify the emergency forces.

(e) The local audible signal initiated by the detector is permitted to be silenced and reset by a button on the detector or by a switch installed within 10 ft (3.0 m) of the system smoke detector.

No system smoke detectors are located less than 20 ft (6.1 m) from the cooktop or range that are required to be installed in corridors or spaces open to the corridor by other sections of this chapter are not used to meet the requirements of 19.3.2.5.3(11) and are located not closer than 25 ft (7.6 m) to the cooktop or range.

The smoke compartment is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

Within a smoke compartment, residential or commercial cooking equipment that is used to prepare meals for 30 or fewer persons shall be permitted, provided that the cooking facility complies with all of the following conditions:

(1) The space containing the cooking equipment is not a sleeping room.

(2) The space containing the cooking equipment shall be separated from the corridor by partitions complying with 19.3.6.2 through 19.3.6.5.

(3) The requirements of 19.3.2.5.3(1) through (10) and (13) are met.

Where cooking facilities are protected in accordance with 9.2.3, the presence of the cooking equipment shall not cause the room or space housing the equipment to be classified as a hazardous area with respect to the requirements of 19.3.2.1, and the room or space shall not be permitted to be open to the corridor.
19.3.2.6* 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 conditions are met:

1. Where dispensers are installed in a corridor, the corridor shall have a minimum width of 6 ft (1830 mm).
2. The maximum individual dispenser fluid capacity shall be as follows:
   a. 0.32 gal (1.2 L) for dispensers in rooms, corridors, and areas open to corridors
   b. 0.53 gal (2.0 L) for dispensers in suites of rooms
3. Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz. (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B, Code for the Manufacture and Storage of Aerosol Products.
4. Dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).
5. Not more than an aggregate 10 gal (37.8 L) of alcohol-based hand-rub solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment, except as otherwise provided in 19.3.2.6(6).
6. One dispenser complying with 19.3.2.6(2) or (3) per room and located in that room shall not be included in the aggregated quantity addressed in 19.3.2.6(5).
7. Storage of quantities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30, Flammable and Combustible Liquids Code.
8. Dispensers shall not be installed in the following locations:
   a. Above an ignition source within a 1 in. (25 mm) horizontal distance from each side of the ignition source
   b. To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source
   c. Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source
9. Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments.
10. The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.
11. Operation of the dispenser shall comply with the following criteria:
   a. The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation.
   b. Any activation of the dispenser shall occur only when an object is placed within 4 in. (100 mm) of the sensing device.
   c. An object placed within the activation zone and left in place shall not cause more than one activation.
   d. The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.
   e. The dispenser shall be designed, constructed, and operated in a manner that ensures that accidental or malicious activation of the dispensing device is minimized.
   f. The dispenser shall be tested in accordance with the manufacturer’s care and use instructions each time a new refill is installed.

19.3.3 Interior Finish.
19.3.3.1 General. Interior finish shall be in accordance with Section 10.2.
19.3.3.2* Interior Wall and Ceiling Finish. Existing interior wall and ceiling finish materials complying with Section 10.2 shall be permitted to be Class A or Class B.
19.3.3.3 Interior Floor Finish. No restrictions shall apply to existing interior floor finish.

19.3.4 Detection, Alarm, and Communications Systems.

19.3.4.1 General. Health care occupancies shall be provided with a fire alarm system in accordance with Section 9.6.

19.3.4.2* Initiation.

First Revision No. 472:NFPA 101-2012
[FR 3066: FileMaker]

19.3.4.2.1 Initiation of the required fire alarm systems shall be by manual means in accordance with 9.6.2 and by means of any required sprinkler system waterflow alarms, detection devices, or detection systems, unless otherwise permitted by 19.3.4.2.2 through 19.3.4.2.4 19.3.4.2.5.

19.3.4.2.2 Manual fire alarm boxes in patient sleeping areas shall not be required at exits if located at all nurses’ control stations or other continuously attended staff location, provided that both of the following criteria are met:

(1) Such manual fire alarm boxes are visible and continuously accessible.
(2) Travel distances required by 9.6.2.5 are not exceeded.

First Revision No. 473:NFPA 101-2012
[FR 3068: FileMaker]

19.3.4.2.3 The system smoke detector installed in accordance with 19.3.2.5.3(13) shall not be required to initiate the fire alarm system.

19.3.4.2.4 19.3.4.2.4 Fixed extinguishing systems protecting commercial cooking equipment in kitchens that are protected by a complete automatic sprinkler system shall not be required to initiate the fire alarm system.

19.3.4.2.5 Detectors required by 19.7.5.3 and 19.7.5.5 shall not be required to initiate the fire alarm system.

19.3.4.3 Notification. Positive alarm sequence in accordance with 9.6.3.4 shall be permitted in health care occupancies protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

First Revision No. 474:NFPA 101-2012
[FR 3072: FileMaker]

19.3.4.3.1 Occupant Notification. Occupant notification shall be accomplished automatically in accordance with 9.6.3, unless otherwise modified by the following:

(1)* In lieu of audible alarm signals, visible alarm-indicating appliances shall be permitted to be used in critical care areas.
(2) Where visual devices have been installed in patient sleeping areas in place of an audible alarm, they shall be permitted where approved by the authority having jurisdiction.
(3) The provision of 19.3.2.5.3(13)(c) shall be permitted to be used.

19.3.4.3.2 Emergency Forces Notification.

First Revision No. 475:NFPA 101-2012
[FR 3071: FileMaker]

19.3.4.3.2.1 Fire department – Emergency forces notification shall be accomplished in accordance with 9.6.4, except that the provision of 19.3.2.5.3(13)(d) shall be permitted to be used.

19.3.4.3.2.2 Smoke detection devices or smoke detection systems equipped with reconfirmation features shall not be required to automatically notify the fire department, unless the alarm condition is reconfirmed after a period not exceeding 120 seconds.

19.3.4.3.3 Reserved.
19.3.4.4 Fire Safety Functions. Operation of any activating device in the required fire alarm system shall be arranged to accomplish automatically any control functions to be performed by that device. (See 9.6.5.)

19.3.4.5 Detection.

19.3.4.5.1 Corridors. An approved automatic smoke detection system in accordance with Section 9.6 shall be installed in all corridors of limited care facilities, unless otherwise permitted by one of the following:

(1) Where each patient sleeping room is protected by an approved smoke detection system, and a smoke detector is provided at smoke barriers and horizontal exits in accordance with Section 9.6, the corridor smoke detection system shall not be required on the patient sleeping room floors.

(2) Smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7 shall be permitted.

19.3.4.5.2 Detection in Spaces Open to Corridors. See 19.3.6.1.

19.3.5 Extinguishment Requirements.

19.3.5.1 Buildings containing nursing homes shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7, unless otherwise permitted by 19.3.5.5.

19.3.5.2 High-rise buildings shall comply with 19.4.2.

19.3.5.3 Where required by 19.1.6, buildings containing hospitals or limited care facilities shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7, unless otherwise permitted by 19.3.5.5.

19.3.5.4* The sprinkler system required by 19.3.5.1 or 19.3.5.3 shall be installed in accordance with 9.7.1.1(1).

19.3.5.5 In Type I and Type II construction, alternative protection measures shall be permitted to be substituted for sprinkler protection in specified areas where the authority having jurisdiction has prohibited sprinklers, without causing a building to be classified as nonsprinklered.

19.3.5.6 Reserved.

19.3.5.7* Where this Code permits exceptions for fully sprinklered buildings or smoke compartments, the sprinkler system shall meet all of the following criteria:

(1) It shall be in accordance with Section 9.7.
(2) It shall be installed in accordance with 9.7.1.1(1), unless it is an approved existing system.
(3) It shall be electrically connected to the fire alarm system.
(4) It shall be fully supervised.
(5) In Type I and Type II construction, where the authority having jurisdiction has prohibited sprinklers, approved alternative protection measures shall be permitted to be substituted for sprinkler protection in specified areas without causing a building to be classified as nonsprinklered.

19.3.5.8* Where this Code permits exceptions for fully sprinklered buildings or smoke compartments and specifically references this paragraph, the sprinkler system shall meet all of the following criteria:

(1) It shall be installed throughout the building or smoke compartment in accordance with Section 9.7.
(2) It shall be installed in accordance with 9.7.1.1(1), unless it is an approved existing system.
(3) It shall be electrically connected to the fire alarm system.
(4) It shall be fully supervised.
(5) It shall be equipped with listed quick-response or listed residential sprinklers throughout all smoke compartments containing patient sleeping rooms.
(6)* Standard-response sprinklers shall be permitted to be continued to be used in approved existing sprinkler systems where quick-response and residential sprinklers were not listed for use in such locations at the time of installation.
Standard-response sprinklers shall be permitted for use in hazardous areas protected in accordance with 19.3.2.1.

19.3.5.9 Isolated hazardous areas shall be permitted to be protected in accordance with 9.7.1.2. For new installations in existing health care occupancies, where more than two sprinklers are installed in a single area, waterflow detection shall be provided to sound the building fire alarm or to notify, by a signal, any constantly attended location, such as PBX, security, or emergency room, at which the necessary corrective action shall be taken.

19.3.5.10* Sprinklers shall not be required in clothes closets of patient sleeping rooms in hospitals where the area of the closet does not exceed 6 ft\(^2\) (0.55 m\(^2\)), 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, *Standard for the Installation of Sprinkler Systems*.

19.3.5.11* Newly introduced cubicle curtains in sprinklered areas shall be installed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*.

Portable fire extinguishers shall be provided in all health care occupancies in accordance with 9.7.4.1.

19.3.6 Corridors.

19.3.6.1 Corridor Separation. Corridors shall be separated from all other areas by partitions complying with 19.3.6.2 through 19.3.6.5 (see also 19.2.5.4), unless otherwise permitted by one of the following:

1. Smoke compartments protected throughout by an approved supervised automatic sprinkler system in accordance with 19.3.5.8 shall be permitted to have spaces that are unlimited in size and open to the corridor, provided that all of the following criteria are met:
   a. The spaces are not used for patient sleeping rooms, treatment rooms, or hazardous areas.
   b. The corridors onto which the spaces open in the same smoke compartment are protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4, or the smoke compartment in which the space is located is protected throughout by quick-response sprinklers.
   c. The open space is protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4, or the entire space is arranged and located to allow direct supervision by the facility staff from a nurses’ station or similar space.
   d. The space does not obstruct access to required exits.

2. In smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.8, waiting areas shall be permitted to be open to the corridor, provided that all of the following criteria are met:
   a. The aggregate waiting area in each smoke compartment does not exceed 600 ft\(^2\) (55.7 m\(^2\)).
   b. Each area is protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4, or each area is arranged and located to allow direct supervision by the facility staff from a nursing station or similar space.
   c. The area does not obstruct access to required exits.
   (3)* This requirement shall not apply to spaces for nurses’ stations.

3. Gift shops not exceeding 500 ft\(^2\) (46.4 m\(^2\)) shall be permitted to be open to the corridor or lobby, provided that one of the following criteria is met:
   a. The building is protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.
   b. The gift shop is protected throughout by an approved automatic sprinkler system in accordance with Section 9.7, and storage is separately protected.

Limited care facilities in smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.8 shall be permitted to have group...
meeting or multipurpose therapeutic spaces open to the corridor, provided that all of the following criteria are met:

(a) The space is not a hazardous area.
(b) The space is protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4, or the space is arranged and located to allow direct supervision by the facility staff from the nurses’ station or similar location.
(c) The space does not obstruct access to required exits.

(6) Cooking facilities in accordance with 19.3.2.5.3 shall be permitted to be open to the corridor.

(7) Spaces, other than patient sleeping rooms, treatment rooms, and hazardous areas, shall be permitted to be open to the corridor and unlimited in area, provided that all of the following criteria are met:

(a) The space and the corridors onto which it opens, where located in the same smoke compartment, are protected by an electrically supervised automatic smoke detection system in accordance with 19.3.4.
(b) Each space is protected by automatic sprinklers, or the furnishings and furniture, in combination with all other combustibles within the area, are of such minimum quantity and arrangement that a fully developed fire is unlikely to occur.
(c) The space does not obstruct access to required exits.

(8)* Waiting areas shall be permitted to be open to the corridor, provided that all of the following criteria are met:

(a) Each area does not exceed 600 ft² (55.7 m²).
(b) The area is equipped with an electrically supervised automatic smoke detection system in accordance with 19.3.4.
(c) The area does not obstruct any access to required exits.

(9) Group meeting or multipurpose therapeutic spaces, other than hazardous areas, that are under continuous supervision by facility staff shall be permitted to be open to the corridor, provided that all of the following criteria are met:

(a) Each area does not exceed 1500 ft² (139 m²).
(b) Not more than one such space is permitted per smoke compartment.
(c) The area is equipped with an electrically supervised automatic smoke detection system in accordance with 19.3.4.
(d) The area does not obstruct access to required exits.

### 19.3.6.2 Construction of Corridor Walls.

#### 19.3.6.2.1
Corridor walls shall be continuous from the floor to the underside of the floor or roof deck above; through any concealed spaces, such as those above suspended ceilings; and through interstitial structural and mechanical spaces, unless otherwise permitted by 19.3.6.2 through 19.3.6.2.8.

#### 19.3.6.2.2*
Corridor walls shall have a minimum ½-hour fire resistance rating.

#### 19.3.6.2.3*
Corridor walls shall form a barrier to limit the transfer of smoke.

#### 19.3.6.2.4*
In smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7, a corridor shall be permitted to be separated from all other areas by non-fire-rated partitions and shall be permitted to terminate at the ceiling where the ceiling is constructed to limit the transfer of smoke.

#### 19.3.6.2.5
Existing corridor partitions shall be permitted to terminate at ceilings that are not an integral part of a floor construction if 60 in. (1525 mm) or more of space exists between the top of the ceiling subsystem and the bottom of the floor or roof above, provided that all the following criteria are met:
(1) The ceiling is part of a fire-rated assembly tested to have a minimum 1-hour fire resistance rating in compliance with the provisions of Section 8.3.
(2) The corridor partitions form smoke-tight joints with the ceilings, and joint filler, if used, is noncombustible.
(3) Each compartment of interstitial space that constitutes a separate smoke area is vented, in a smoke emergency, to the outside by mechanical means having the capacity to provide not less than two air changes per hour but, in no case, a capacity less than 5000 ft³/min (2.35 m³/s).
(4) The interstitial space is not used for storage.
(5) The space is not used as a plenum for supply, exhaust, or return air, except as noted in 19.3.6.2.5(3).

19.3.6.2.6** Existing corridor partitions shall be permitted to terminate at monolithic ceilings that resist the passage of smoke where there is a smoke-tight joint between the top of the partition and the bottom of the ceiling.

19.3.6.2.7 Fixed fire window assemblies in accordance with Section 8.3 shall be permitted in corridor walls, unless otherwise permitted in 19.3.6.2.8.

19.3.6.2.8 There shall be no restrictions in area and fire resistance of glass and frames in smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7.

19.3.6.3** Corridor Doors.

19.3.6.3.1** Doors, including doors or panels to nurse servers and pass-through openings, protecting corridor openings in other than required enclosures of vertical openings, exits, or hazardous areas shall be doors constructed to resist the passage of smoke and shall be constructed of materials such as the following:

1. 1 3/4 in. thick, sold-bonded core wood
2. Material that resists fire for a minimum of 20 minutes.

19.3.6.3.2 The requirements of 19.3.6.3.1 shall not apply where otherwise permitted by either of the following:

1. Doors to toilet rooms, bathrooms, shower rooms, sink closets, and similar auxiliary spaces that do not contain flammable or combustible materials shall not be required to comply with 19.3.6.3.1.
2. In smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7, the door construction materials requirements of 19.3.6.3.1 shall not be mandatory, but the doors shall be constructed to resist the passage of smoke.

19.3.6.3.3 Compliance with NFPA 80, Standard for Fire Doors and Other Opening Protectives, shall not be required.

19.3.6.3.4 A clearance between the bottom of the door and the floor covering not exceeding 1 in. (25 mm) shall be permitted for corridor doors.

19.3.6.3.5** Doors shall be provided with a means for keeping the door closed that is acceptable to the authority having jurisdiction, and the following requirements also shall apply:

1. The device used shall be capable of keeping the door fully closed if a force of 5 lbf (22 N) is applied at the latch edge of the door.
2. Roller latches shall be prohibited on corridor doors in buildings not fully protected by an approved automatic sprinkler system in accordance with 19.3.5.7.

19.3.6.3.6 The requirements of 19.3.6.3.5 shall not apply where otherwise permitted by either of the following:

1. Doors to toilet rooms, bathrooms, shower rooms, sink closets, and similar auxiliary spaces that do not contain flammable or combustible materials shall not be required to comply with 19.3.6.3.5.
(2) Existing roller latches demonstrated to keep the door closed against a force of 5 lbf (22 N) shall be permitted to be kept in service.

19.3.6.3.7 Powered doors that comply with the requirements of 7.2.1.9 shall be considered as complying with the requirements of 19.3.6.3.5, provided that both of the following criteria are met:

(1) The door is equipped with a means for keeping the door closed that is acceptable to the authority having jurisdiction.

(2) The device used is capable of keeping the door fully closed if a force of 5 lbf (22 N) is applied at the latch edge of a swinging door and applied in any direction to a sliding or folding door, whether or not power is applied.

19.3.6.3.8 Reserved.
19.3.6.3.9 Reserved.
19.3.6.3.10* Doors shall not be held open by devices other than those that release when the door is pushed or pulled.

19.3.6.3.11 Door-closing devices shall not be required on doors in corridor wall openings other than those serving required exits, smoke barriers, or enclosures of vertical openings and hazardous areas.

19.3.6.3.12* Nonrated, factory- or field-applied protective plates, unlimited in height, shall be permitted.

19.3.6.3.13 Dutch doors shall be permitted where they conform to 19.3.6.3 and meet all of the following criteria:

(1) Both the upper leaf and lower leaf are equipped with a latching device.

(2) The meeting edges of the upper and lower leaves are equipped with an astragal, a rabbet, or a bevel.

(3) Where protecting openings in enclosures around hazardous areas, the doors comply with NFPA 80, Standard for Fire Doors and Other Opening Protectives.

19.3.6.3.14 Door frames shall be labeled, shall be of steel construction, or shall be of other materials in compliance with the provisions of Section 8.3, unless otherwise permitted by 19.3.6.3.15.

19.3.6.3.15 Door frames in smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7 shall not be required to comply with 19.3.6.3.14.

19.3.6.3.16 Fixed fire window assemblies in accordance with Section 8.3 shall be permitted in corridor doors.

19.3.6.3.17 Restrictions in area and fire resistance of glass and frames required by Section 8.3 shall not apply in smoke compartments protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7.

19.3.6.4 Transfer Grilles.

19.3.6.4.1 Transfer grilles, regardless of whether they are protected by fusible link–operated dampers, shall not be used in corridor walls or doors, unless otherwise permitted by 19.3.6.4.2.

19.3.6.4.2 Doors to toilet rooms, bathrooms, shower rooms, sink closets, and similar auxiliary spaces that do not contain flammable or combustible materials shall be permitted to have ventilating louvers or to be undercut.

19.3.6.5 Openings.

19.3.6.5.1* Miscellaneous openings, such as mail slots, pharmacy pass-through windows, laboratory pass-through windows, and cashier pass-through windows, shall be permitted to be installed in vision panels or doors without special protection, provided that both of the following criteria are met:

(1) The aggregate area of openings per room does not exceed 20 in.² (0.015 m²).
(2) The openings are installed at or below half the distance from the floor to the room ceiling.

19.3.6.5.2 The alternative requirements of 19.3.6.5.1 shall not apply where otherwise modified by the following:

(1) Openings in smoke compartments containing patient bedrooms shall not be permitted to be installed in vision panels or doors without special protection.

(2) For rooms protected throughout by an approved, supervised automatic sprinkler system in accordance with 19.3.5.7, the aggregate area of openings per room shall not exceed 80 in.\(^2\) (0.05 m\(^2\)).

19.3.7 Subdivision of Building Spaces.

19.3.7.1 Smoke barriers shall be provided to divide every story used for sleeping rooms for more than 30 patients into not less than two smoke compartments (see 19.2.4.4), and the following also shall apply:

(1) The size of any such smoke compartment shall not exceed one of the following:
   (a) 22,500 ft\(^2\) (2100 m\(^2\)), and the travel distance from any point to reach a door in the required smoke barrier shall not exceed 200 ft (61 m), for health care occupancies not meeting 19.3.7.1(1)(b).
   (b) 40,000 ft\(^2\) (3720 m\(^2\)), and the travel distance from any point to reach a door in the required smoke barrier shall not exceed 200 ft (61 m), for buildings protected throughout by an approved, supervised automatic sprinkler system in accordance 19.3.5.8.

(2) Where neither the length nor width of the smoke compartment exceeds 150 ft (46 m), the travel distance to reach the smoke barrier door shall not be limited.

(3) The area of an atrium separated in accordance with 8.6.7 shall not be limited in size.

19.3.7.2 For purposes of the requirements of 19.3.7, the number of health care occupants shall be determined by actual count of patient bed capacity.

19.3.7.3 Any required smoke barrier shall be constructed in accordance with Section 8.5 and shall have a minimum ½-hour fire resistance rating, unless otherwise permitted by one of the following:

(1) This requirement shall not apply where an atrium is used, and both of the following criteria also shall apply:
   (a) Smoke barriers shall be permitted to terminate at an atrium wall constructed in accordance with 8.6.7(1)(c).
   (b) Not less than two separate smoke compartments shall be provided on each floor.
   (2)* Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air-conditioning systems where an approved, supervised automatic sprinkler system in accordance with 19.3.5.8 has been provided for smoke compartments adjacent to the smoke barrier.

19.3.7.4 Reserved.

19.3.7.5 Accumulation space shall be provided in accordance with 19.3.7.5.1 and 19.3.7.5.2.

19.3.7.5.1 Not less than 30 net ft\(^2\) (2.8 net m\(^2\)) per patient in a hospital or nursing home, or not less than 15 net ft\(^2\) (1.4 net m\(^2\)) per resident in a limited care facility, shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas, and other low hazard areas on each side of the smoke barrier.

19.3.7.5.2 On stories not housing bedridden or litterborne patients, not less than 6 net ft\(^2\) (0.56 net m\(^2\)) per occupant shall be provided on each side of the smoke barrier for the total number of occupants in adjoining compartments.
19.3.7.6 Openings in smoke barriers shall be protected using one of the following methods:
(1) Fire-rated glazing
(2) Wired Existing wired glass panels in steel frames

19.3.7.6.1* Nonrated factory- or field-applied protective plates, unlimited in height, shall be permitted.

19.3.7.6.2 Doors shall be permitted to have fixed fire window assemblies in accordance with Section 8.5. Vision panels, if provided, in doors shall be protected using one of the following methods:
(1) Fixed fire window assemblies in accordance with Section 8.5
(2) Existing wired glass panels in steel frames

19.3.7.7 Reserved.

19.3.7.8* Doors in smoke barriers shall comply with 8.5.4 and all of the following:
(1) The doors shall be self-closing or automatic-closing in accordance with 19.2.2.2.7.
(2) Latching hardware shall not be required
(3) The doors shall not be required to swing in the direction of egress travel.

19.3.7.9 Door openings in smoke barriers shall be protected using one of the following methods:
(1) Swinging door providing a clear width of not less than 32 in. (810 mm)
(2) Horizontal-sliding door Special-purpose horizontally sliding accordion or folding door assemblies complying with 7.2.1.14 and providing a clear width of not less than 32 in. (810 mm)

19.3.7.10 The requirement of 19.3.7.9 shall not apply to existing 34 in. (865 mm) doors.

19.3.8* Special Protection Features. (Reserved)

19.4 Special Provisions.

19.4.1 Limited Access Buildings. See Section 11.7 for requirements for limited access buildings.

19.4.2 High-Rise Buildings.

19.4.2.1 All high-rise buildings containing health care occupancies shall be protected throughout by an approved, supervised automatic sprinkler system installed in accordance with Section 9.7 within 12 years of the adoption of this Code, except as otherwise provided in 19.4.2.2.

19.4.2.2* Where a jurisdiction adopts this edition of the Code and previously adopted the 2009 edition, the sprinklering required by 19.4.2.1 shall be installed within 9 years of the adoption of this Code.

19.4.3 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 conditions are met:
(1) Where dispensers are installed in a corridor, the corridor shall have a minimum width of 6 ft (1830 mm).
(2) The maximum individual dispenser fluid capacity shall be as follows:
   (a) 0.32 gal (1.2 L) for dispensers in rooms, corridors, and areas open to corridors
   (b) 0.53 gal (2.0 L) for dispensers in suites of rooms
(3) Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz. (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B, Code for the Manufacture and Storage of Aerosol Products.
(4) Dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).
(5) Not more than an aggregate 10 gal (37.8 L) of alcohol-based hand-rub solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total, the
equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment, except as otherwise provided in 19.4.3(6).

(6) One dispenser complying with 18.4.3(2) or (3) per room and located in that room shall not be included in the aggregated quantity addressed in 19.4.3(5).

(7) Storage of quantities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30, Flammable and Combustible Liquids Code.

(8) Dispensers shall not be installed in the following locations:
(a) Above an ignition source within a 1 in. (25 mm) horizontal distance from each side of the ignition source
(b) To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source
(c) Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source

(9) Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments.

(10) The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.

(11) Operation of the dispenser shall comply with the following criteria:
(a) The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation.
(b) Any activation of the dispenser shall occur only when an object is placed within 4 in. (100 mm) of the sensing device.
(c) An object placed within the activation zone and left in place shall not cause more than one activation.
(d) The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.
(e) The dispenser shall be designed, constructed, and operated in a manner that ensures that accidental or malicious activation of the dispensing device is minimized.
(f) The dispenser shall be tested in accordance with the manufacturer’s care and use instructions each time a new refill is installed.

19.5 Building Services.
19.5.1 Utilities.
19.5.1.1 Utilities shall comply with the provisions of Section 9.1.
19.5.1.2 Existing installations shall be permitted to be continued in service, provided that the systems do not present a serious hazard to life.

19.5.2 Heating, Ventilating, and Air-Conditioning.
19.5.2.1 Heating, ventilating, and air-conditioning shall comply with the provisions of Section 9.2 and shall be installed in accordance with the manufacturer’s specifications, unless otherwise modified by 19.5.2.2.
19.5.2.2* Any heating device, other than a central heating plant, shall be designed and installed so that combustible material cannot be ignited by the device or its appurtenances, and the following requirements also shall apply:
(1) If fuel-fired, such heating devices shall comply with the following:
(a) They shall be chimney connected or vent connected.
(b) They shall take air for combustion directly from the outside.
(c) They shall be designed and installed to provide for complete separation of the combustion system from the atmosphere of the occupied area.
(2) Any heating device shall have safety features to immediately stop the flow of fuel and shut down the equipment in case of either excessive temperature or ignition failure.

19.5.2.3 The requirements of 19.5.2.2 shall not apply where otherwise permitted by the following:
19.5.2.2 Approved, suspended unit heaters shall be permitted in locations other than means of egress and patient sleeping areas, provided that both of the following criteria are met:

(a) Such heaters are located high enough to be out of the reach of persons using the area.
(b) Such heaters are equipped with the safety features required by 19.5.2.2(2).

19.5.2.3 Direct-vent gas fireplaces, as defined in NFPA 54, National Fuel Gas Code, shall be permitted inside of smoke compartments containing patient sleeping areas, provided that all of the following criteria are met:

(a) All such devices shall be installed, maintained, and used in accordance with 9.2.2.
(b) No such device shall be located inside of a patient sleeping room.
(c) The smoke compartment in which the direct-vent gas fireplace is located shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1) with listed quick-response or listed residential sprinklers.
(d)* The direct-vent fireplace shall include a sealed glass front with a wire mesh panel or screen.
(e)* The controls for the direct-vent gas fireplace shall be locked or located in a restricted location.
(f) Electrically supervised carbon monoxide detection in accordance with Section 9.8 shall be provided in the room where the fireplace is located.

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

19.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes.

19.5.4.1 Existing rubbish chutes or linen chutes, including pneumatic rubbish and linen systems, that open directly onto any corridor shall be sealed by fire-resistive construction to prevent further use or shall be provided with a fire door assembly having a minimum 1-hour fire protection rating. All new chutes shall comply with Section 9.5.

19.5.4.2 Reserved.

19.5.4.3 Any rubbish chute or linen chute, including pneumatic rubbish and linen systems, shall be provided with automatic extinguishing protection in accordance with Section 9.7. (See Section 9.5.)

19.5.4.4 Any rubbish chute shall discharge into a trash collection chute discharge room used for no other purpose and shall be protected in accordance with Section 8.7 unless otherwise provided in 19.5.4.5.

19.5.4.5 Existing laundry chutes shall be permitted to discharge into the same room as rubbish discharge chutes, provided that the room is protected by automatic sprinklers in accordance with 19.3.5.9 or 19.3.5.7.

19.5.4.6 Existing flue-fed incinerators shall be sealed by fire-resistive construction to prevent further use.

19.6 Reserved.
19.7* Operating Features.

19.7.1 Evacuation and Relocation Plan and Fire Drills.
19.7.1.1 The administration of every health care occupancy shall have, in effect and available to all supervisory personnel, written copies of a plan for the protection of all persons in the event of fire, for their evacuation to areas of refuge, and for their evacuation from the building when necessary.
19.7.1.2 All employees shall be periodically instructed and kept informed with respect to their duties under the plan required by 19.7.1.1.
19.7.1.3 A copy of the plan required by 19.7.1.1 shall be readily available at all times in the telephone operator's location or at the security center.
19.7.1.4 Fire drills in health care occupancies shall include the transmission of a fire alarm signal and simulation of emergency fire conditions.
19.7.1.5 Infirm or bedridden patients shall not be required to be moved during drills to safe areas or to the exterior of the building.
19.7.1.6 Drills shall be conducted quarterly on each shift to familiarize facility personnel (nurses, interns, maintenance engineers, and administrative staff) with the signals and emergency action required under varied conditions.
19.7.1.7 When drills are conducted between 9:00 p.m. and 6:00 a.m. (2100 hours and 0600 hours), a coded announcement shall be permitted to be used instead of audible alarms.
19.7.1.8 Employees of health care occupancies shall be instructed in life safety procedures and devices.

19.7.2 Procedure in Case of Fire.
19.7.2.1* Protection of Patients.
19.7.2.1.1 For health care occupancies, the proper protection of patients shall require the prompt and effective response of health care personnel.
19.7.2.1.2 The basic response required of staff shall include the following:
   (1) Removal of all occupants directly involved with the fire emergency
   (2) Transmission of an appropriate fire alarm signal to warn other building occupants and summon staff
   (3) Confinement of the effects of the fire by closing doors to isolate the fire area
   (4) Relocation of patients as detailed in the health care occupancy’s fire safety plan
19.7.2.2 Fire Safety Plan. A written health care occupancy fire safety plan shall provide for all of the following:
   (1) Use of alarms
   (2) Transmission of alarms to fire department
   (3) Emergency phone call to fire department
   (4) Response to alarms
   (5) Isolation of fire
   (6) Evacuation of immediate area
   (7) Evacuation of smoke compartment
   (8) Preparation of floors and building for evacuation
   (9) Extinguishment of fire
19.7.2.3 Staff Response.
19.7.2.3.1 All health care occupancy personnel shall be instructed in the use of and response to fire alarms.
19.7.2.3.2 All health care occupancy personnel shall be instructed in the use of the code phrase to ensure transmission of an alarm under any of the following conditions:
   (1) When the individual who discovers a fire must immediately go to the aid of an endangered person
(2) During a malfunction of the building fire alarm system

**19.7.2.3.3** Personnel hearing the code announced shall first activate the building fire alarm using the nearest manual fire alarm box and then shall execute immediately their duties as outlined in the fire safety plan.

**19.7.3** Maintenance of Means of Egress.

**19.7.3.1** Proper maintenance shall be provided to ensure the dependability of the method of evacuation selected.

**19.7.3.2** Health care occupancies that find it necessary to lock means of egress doors shall, at all times, maintain an adequate staff qualified to release locks and direct occupants from the immediate danger area to a place of safety in case of fire or other emergency.

**19.7.3.3** For smoke compartments having spaces not separated from the corridor by partitions, a written floor plan shall be provided to indicate the location of all required means of egress corridors in that smoke compartment.

**19.7.4** Smoking. Smoking regulations shall be adopted and shall include not less than the following provisions:

(1) Smoking shall be prohibited in any room, ward, or individual enclosed space where flammable liquids, combustible gases, or oxygen is used or stored and in any other hazardous location, and such areas shall be posted with signs that read NO SMOKING or shall be posted with the international symbol for no smoking.

(2) In health care occupancies where smoking is prohibited and signs are prominently placed at all major entrances, secondary signs with language that prohibits smoking shall not be required.

(3) Smoking by patients classified as not responsible shall be prohibited.

(4) The requirement of 19.7.4(3) shall not apply where the patient is under direct supervision.

(5) Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted.

(6) Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted.

**19.7.5** Furnishings, Mattresses, and Decorations.

**19.7.5.1** Draperies, curtains, and other loosely hanging fabrics and films serving as furnishings or decorations in health care occupancies shall be in accordance with the provisions of 10.3.1 (see 19.3.5.11), and the following also shall apply:

(1) Such curtains shall include cubicle curtains.

(2) Such curtains shall not include curtains at showers and baths.

(3) Such draperies and curtains shall not include draperies and curtains at windows in patient sleeping rooms in smoke compartments sprinklered in accordance with 19.3.5.

(4) Such draperies and curtains shall not include draperies and curtains in other rooms or areas where the draperies and curtains comply with all of the following:

(a) Individual drapery or curtain panel area does not exceed 48 ft² (4.5 m²).

(b) Total area of drapery and curtain panels per room or area does not exceed 20 percent of the aggregate area of the wall on which they are located.

(c) Smoke compartment in which draperies or curtains are located is sprinklered in accordance with 19.3.5.

**19.7.5.2** Newly introduced upholstered furniture within health care occupancies shall comply with one of the following provisions, unless otherwise provided in 19.7.5.3:

(1) The furniture shall meet the criteria specified in 10.3.2.1 and 10.3.3.
(2) The furniture shall be in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

19.7.5.3 The requirements of 19.7.5.2, 10.3.2.1, and 10.3.3 shall not apply to upholstered furniture belonging to the patient in sleeping rooms of nursing homes where the following criteria are met:

(1) A smoke detector shall be installed where the patient sleeping room is not protected by automatic sprinklers.

(2) Battery-powered single-station smoke detectors shall be permitted.

19.7.5.4 Newly introduced mattresses within health care occupancies shall comply with one of the following provisions, unless otherwise provided in 19.7.5.5:

(1) The mattresses shall meet the criteria specified in 10.3.2.2 and 10.3.4.

(2) The mattresses shall be in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

19.7.5.5 The requirements of 19.7.5.4, 10.3.2.2, and 10.3.4 shall not apply to mattresses belonging to the patient in sleeping rooms of nursing homes where the following criteria are met:

(1) A smoke detector shall be installed where the patient sleeping room is not protected by automatic sprinklers.

(2) Battery-powered single-station smoke detectors shall be permitted.

19.7.5.6 Combustible decorations shall be prohibited in any health care occupancy, unless one of the following criteria is met:

(1) They are flame-retardant or are treated with approved fire-retardant coating that is listed and labeled for application to the material to which it is applied.

(2) The decorations meet the requirements flame propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

(3) The decorations exhibit a heat release rate not exceeding 100 kW when tested in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source.

(4)* The decorations, such as photographs, paintings, and other art, are attached directly to the walls, ceiling, and non-fire-rated doors in accordance with the following:

(a) Decorations on non-fire-rated doors do not interfere with the operation or any required latching of the door and do not exceed the area limitations of 19.7.5.6(b), (c), or (d).

(b) Decorations do not exceed 20 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is not protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.

(c) Decorations do not exceed 30 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

(d) Decorations do not exceed 50 percent of the wall, ceiling, and door areas inside patient sleeping rooms, having a capacity not exceeding four persons, in a smoke compartment that is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

(5)* They are decorations, such as photographs and paintings, in such limited quantities that a hazard of fire development or spread is not present.

19.7.5.7 Soiled Linen and Trash Receptacles.

19.7.5.7.1 Soiled linen or trash collection receptacles shall not exceed 32 gal (121 L) in capacity and shall meet all of the following requirements:
(1) The average density of container capacity in a room or space shall not exceed 0.5 gal/ft\(^2\) (20.4 L/m\(^2\)).

(2) A capacity of 32 gal (121 L) shall not be exceeded within any 64 ft\(^2\) (6 m\(^2\)) area.

(3) Mobile soiled linen or trash collection receptacles with capacities greater than 32 gal (121 L) shall be located in a room protected as a hazardous area when not attended.

(4) Container size and density shall not be limited in hazardous areas.

19.7.5.7.2* Containers used solely for recycling clean waste or for patient records awaiting destruction shall be permitted to be excluded from the requirements of 19.7.5.7.1 where all the following conditions are met:

(1) Each container shall be limited to a maximum capacity of 96 gal (363 L), except as permitted by 19.7.5.7.2(2) or (3).

(2)* Containers with capacities greater than 96 gal (363 L) shall be located in a room protected as a hazardous area when not attended.

(3) Container size shall not be limited in hazardous areas.

(4) Containers for combustibles shall be labeled and listed as meeting the requirements of FM Approval Standard 6921, *Containers for Combustible Waste*; however, such testing, listing, and labeling shall not be limited to FM Approvals.

19.7.5.7.3 The provisions of 10.3.9, applicable to containers for rubbish, waste, or linen, shall not apply.

19.7.6 Maintenance and Testing. See 4.6.12.

19.7.7* Engineered Smoke Control Systems.

19.7.7.1 Existing engineered smoke control systems, unless specifically exempted by the authority having jurisdiction, shall be tested in accordance with established engineering principles.

19.7.7.2 Systems not meeting the performance requirements of the testing specified in 19.7.7.1 shall be continued in operation only with the specific approval of the authority having jurisdiction.

19.7.8* Portable Space-Heating Devices. Portable space-heating devices shall be prohibited in all health care occupancies, unless both of the following criteria are met:

(1) Such devices are used only in nonsleeping staff and employee areas.

(2) The heating elements of such devices do not exceed 212°F (100°C).

19.7.9 Construction, Repair, and Improvement Operations.

19.7.9.1 Construction, repair, and improvement operations shall comply with 4.6.10.

19.7.9.2 The means of egress in any area undergoing construction, repair, or improvements shall be inspected daily for compliance with 7.1.10.1 and shall also comply with NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*. 

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Chapter 20 New Ambulatory Health Care Occupancies

20.1 General Requirements.

20.1.1 Application.

20.1.1.1 General.

20.1.1.1.1 The requirements of this chapter shall apply to new buildings or portions thereof used as ambulatory health care occupancies. (See 1.3.1.)

20.1.1.1.2 Administration. The provisions of Chapter 1, Administration, shall apply.

20.1.1.1.3 General. The provisions of Chapter 4, General, shall apply.
20.1.1.4 Ambulatory health care facilities shall comply with the provisions of Chapter 38 and this chapter, whichever are more stringent.

20.1.1.5 This chapter establishes life safety requirements, in addition to those required in Chapter 38, that shall apply to the design of all ambulatory health care occupancies as defined in 3.3.188.1.

20.1.1.4 20.1.1.6 Buildings, or sections of buildings, that primarily house patients who, in the opinion of the governing body of the facility and the governmental agency having jurisdiction, are capable of exercising judgment and appropriate physical action for self-preservation under emergency conditions shall be permitted to comply with chapters of this Code other than Chapter 20.

20.1.1.5 20.1.1.7 It shall be recognized that, in buildings providing treatment for certain types of patients or having detention rooms or a security section, it might be necessary to lock doors and bar windows to confine and protect building inhabitants. In such instances, the authority having jurisdiction shall make appropriate modifications to those sections of this Code that would otherwise require means of egress to be kept unlocked.

20.1.1.6* 20.1.1.8* The requirements of this chapter shall apply based on the assumption that staff is available in all patient-occupied areas to perform certain fire safety functions as required in other paragraphs of this chapter.

20.1.1.2* Goals and Objectives. The goals and objectives of Sections 4.1 and 4.2 shall be met with due consideration for functional requirements, which are accomplished by limiting the development and spread of a fire emergency to the room of fire origin and reducing the need for occupant evacuation, except from the room of fire origin.

20.1.1.3 Total Concept.

20.1.1.3.1 All ambulatory health care facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants.

20.1.1.3.2 Because the safety of ambulatory health care occupants cannot be ensured adequately by dependence on evacuation of the building, their protection from fire shall be provided by appropriate arrangement of facilities; adequate, trained staff; and development of operating and maintenance procedures composed of the following:

1. Design, construction, and compartmentation
2. Provision for detection, alarm, and extinguishment
3. Fire prevention and planning, training, and drilling programs for the isolation of fire, transfer of occupants to areas of refuge, or evacuation of the building

20.1.1.4 Additions, Conversions, Modernization, Renovation, and Construction Operations.

20.1.1.4.1 Additions.

20.1.1.4.1.1 Additions shall be separated from any existing structure not conforming to the provisions within Chapter 21 by a fire barrier having not less than a 2-hour fire resistance rating and constructed of materials as required for the addition. (See 4.6.5 and 4.6.7.)

20.1.1.4.1.2 Doors in barriers required by 20.1.1.4.1.1 shall normally be kept closed, unless otherwise permitted by 20.1.1.4.1.3.

20.1.1.4.1.3 Doors shall be permitted to be held open if they meet the requirements of 20.2.2.2.

20.1.1.4.2 Changes of Occupancy. A change from a hospital or nursing home to an ambulatory health care occupancy shall not be considered a change in occupancy or occupancy subclassification.
20.1.1.4.3 Renovations, Alterations, and Modernizations. See 4.6.7. (See 4.6.7.)

20.1.1.4.4 Construction, Repair, and Improvement Operations. See 4.6.10. (See 4.6.10.)

20.1.2 Classification of Occupancy. See 6.1.6 and 20.1.4.2. (See 6.1.6 and 20.1.4.2.)

20.1.3 Multiple Occupancies.

20.1.3.1 Multiple occupancies shall be in accordance with 6.1.14.

20.1.3.2 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, provided both of the following are met:

1. The provision is not used for occupancy separations involving industrial and storage occupancies.
2. Smoke partitions serving as atrium walls are not permitted to serve as enclosures for hazardous areas.

20.1.3.23 Sections of ambulatory health care facilities shall be permitted to be classified as other occupancies, provided that they meet both of the following conditions:

1. They are not intended to serve ambulatory health care occupants for purposes of treatment or customary access by patients incapable of self-preservation.
2. They are separated from areas of ambulatory health care occupancies by construction having a minimum 1-hour fire resistance rating.

20.1.3.34 All means of egress from ambulatory health care occupancies that traverse nonambulatory health care spaces shall conform to the requirements of this Code for ambulatory health care occupancies, unless otherwise permitted by 20.1.3.45.

20.1.3.45 Exit through a horizontal exit into other contiguous occupancies that do not conform to ambulatory health care egress provisions but that do comply with requirements set forth in the appropriate occupancy chapter of this Code shall be permitted, provided that the occupancy does not contain high-high hazard contents.

20.1.3.56 Egress provisions for areas of ambulatory health care facilities that correspond to other occupancies shall meet the corresponding requirements of this Code for such occupancies, and, where the clinical needs of the occupant necessitate the locking of means of egress, staff shall be present for the supervised release of occupants during all times of use.

20.1.3.67 Any area with a hazard of contents classified higher than that of the ambulatory health care occupancy and located in the same building shall be protected as required in 20.3.23.

20.1.3.78 Non-health care–related occupancies classified as containing high-high hazard contents shall not be permitted in buildings housing ambulatory health care occupancies.

20.1.4 Definitions.

20.1.4.1 General. For definitions, see Chapter 3, Definitions.

20.1.4.2 Definition — Ambulatory Health Care Occupancy. See 3.3.188.1. (See 3.3.188.1.)

20.1.5 Classification of Hazard of Contents. The classification of hazard of contents shall be as defined in Section 6.2.

20.1.6 Minimum Construction Requirements.

20.1.6.1 Ambulatory health care occupancies shall be limited to the building construction types specified in Table 20.1.6.1, unless otherwise permitted by 20.1.6.6. (See 8.2.1.)
### Table 20.1.6.1 Construction Type Limitations

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X: Permitted. NP: Not permitted.
†Sprinklered throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7. (See 20.3.5.)
‡See 4.6.3.

**20.1.6.2** Any level below the level of exit discharge shall be separated from the level of exit discharge by not less than Type II (111), Type III (211), or Type V (111) construction (see 8.2.1), unless both of the following criteria are met:

1. Such levels are under the control of the ambulatory health care facility.
2. Any hazardous spaces are protected in accordance with Section 8.7.

**20.1.6.3** Interior nonbearing walls in buildings of Type I or Type II construction shall be constructed of noncombustible or limited-combustible materials, unless otherwise permitted by 20.1.6.4.

**20.1.6.4** Interior nonbearing walls required to have a minimum 2-hour fire resistance rating of 2-hours or less shall be permitted to be fire-retardant-treated wood enclosed within noncombustible or limited-combustible materials, provided that such walls are not used as shaft enclosures.
20.1.6.5 All buildings with more than one level below the level of exit discharge shall have all such lower levels separated from the level of exit discharge by not less than Type II (111) construction.

20.1.6.6 Where new ambulatory health care occupancies are located in existing buildings, the authority having jurisdiction shall be permitted to accept construction systems of lesser fire resistance than those required by 20.1.6.1 through 20.1.6.5, provided that it can be demonstrated to the authority's satisfaction that prompt evacuation of the facility can be achieved in case of fire or that the exposing occupancies and materials of construction present no threat of fire penetration from such occupancy to the ambulatory health care facility or to the collapse of the structure.

20.1.7 Occupant Load. See 38.1.7. The occupant load, in number of persons for whom means of egress and other provisions are required, 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.

20.2 Means of Egress Requirements.

20.2.1 General. Every aisle, passageway, corridor, exit discharge, exit location, and access shall be in accordance with Chapter 7, unless otherwise modified by 20.2.2 through 20.2.11.

20.2.2 Means of Egress Components.

20.2.2.1 Components of means of egress shall be limited to the types described in 38.2.2.

Components Permitted. Means of egress components shall be limited to the types described in 20.2.2.2 through 20.2.2.12.

20.2.2.2 Doors.

20.2.2.2.1 Doors complying with 7.2.1 shall be permitted.

20.2.2.2.2 Special locking arrangements complying with 7.2.1.6 shall be permitted.

20.2.2.2.3 Elevator lobby exit access door locking in accordance with 7.2.1.6.3 shall be permitted.

20.2.2.2.4 Any door required to be self-closing shall be permitted to be held open only by an automatic release device that complies with 7.2.1.8.2. The required manual fire alarm system and the systems required by 7.2.1.8.2 shall be arranged to initiate the closing action of all such doors throughout the smoke compartment or throughout the entire facility.

20.2.2.2.5 Where doors in a stair enclosure are held open by an automatic release device as permitted in 20.2.2.2 20.2.2.4, initiation of a door-closing action on any level shall cause all doors at all levels in the stair enclosure to close.

20.2.2.2.6* Locks complying with 7.2.1.5.5 shall be permitted only on principal entrance/exit doors.

20.2.2.2.5 Reserved.

20.2.2.2.6 Delayed-egress locks complying with 7.2.1.6.1 shall be permitted.

20.2.2.2.7 Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted.

20.2.2.2.8 Elevator lobby exit access door-locking arrangements in accordance with 7.2.1.6.3 shall be permitted.

20.2.2.2.9 Horizontal or vertical security grilles or doors complying with 7.2.1.4.1(3) shall be permitted to be used as part of the required means of egress from a tenant space.

20.2.2.2.10 Reserved.

20.2.2.2.11 Revolving doors complying with 7.2.1.10 shall be permitted.

20.2.2.3 Stairs.

20.2.2.3.1 Stairs complying with 7.2.2 shall be permitted.
20.2.2.3.2  Spiral stairs complying with 7.2.2.3 shall be permitted.

20.2.2.4  Smokeproof Enclosures. Smokeproof enclosures complying with 7.2.3 shall be permitted.

20.2.2.5  Horizontal Exits. Horizontal exits complying with 7.2.4 shall be permitted.

20.2.2.6  Ramps. Ramps complying with 7.2.5 shall be permitted.

20.2.2.7  Exit Passageways. Exit passageways complying with 7.2.6 shall be permitted.

20.2.2.8  Reserved.

20.2.2.9  Reserved.

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

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

20.2.2.12  Areas of Refuge.

20.2.2.12.1  Areas of refuge complying with 7.2.12 shall be permitted.

20.2.2.12.2  In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge in 3.3.22 shall not be required.

20.2.3  Capacity of Means of Egress.

20.2.3.1  The capacity of any required means of egress shall be determined in accordance with Section 7.3 the provisions of 38.2.3.

20.2.3.2  Street floor exits shall be sufficient for the occupant load of the street floor plus the required capacity of open stairs and ramps discharging through the street floor.

20.2.3.3  The clear width of any corridor or passageway required for exit access shall be not less than 44 in. (1120 mm).

20.2.3.4  Where minimum corridor width is 6 ft (1830 mm), projections not more than 6 in. (150 mm) from the corridor wall, above the handrail height, shall be permitted for the installation of hand-rub dispensing units in accordance with 20.3.2.8.

20.2.3.5  Doors in the means of egress from diagnostic or treatment areas, such as x-ray, surgical, or physical therapy, shall provide a clear width of not less than 32 in. (810 mm).

20.2.4  Number of Means of Egress.

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

20.2.4.2  Not less than two exits of the types described in 20.2.2 38.2.2 that are remotely located from each other shall be provided for each floor or fire section of the building.

20.2.4.3  Any patient care room and any patient care suite of rooms of more than 2500 ft$^2$ (232 m$^2$) shall have not less than two exit access doors remotely located from each other.

20.2.4.43  Not less than two exits of the types described in 20.2.2 38.2.2 shall be accessible from each smoke compartment.

20.2.4.54  Egress from smoke compartments addressed in 20.2.4.43 shall be permitted through adjacent compartments provided that the two required egress paths are arranged so that both do not pass through the same adjacent smoke compartment but shall not require return through the compartment of fire origin.

20.2.5  Arrangement of Means of Egress. See 38.2.5.

20.2.5.1  Means of egress shall be arranged in accordance with Section 7.5.
20.2.5.2 Dead-end corridors shall be permitted in accordance with 20.2.5.2.1 or 20.2.5.2.2.

20.2.5.2.1 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), dead-end corridors shall not exceed 50 ft (15 m).

20.2.5.2.2 In buildings other than those complying with 20.2.5.2.1, dead-end corridors shall not exceed 20 ft (6100 mm).

20.2.5.3 Limitations on common path of travel shall be in accordance with 20.2.5.3.1, 20.2.5.3.2, and 20.2.5.3.3.

20.2.5.3.1 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 9.7.1.1(1).

20.2.5.3.2 Common path of travel shall not exceed 100 ft (30 m) within a single tenant space having an occupant load not exceeding 25 persons.

20.2.5.3.3 In buildings other than those complying with 20.2.5.3.1 or 20.2.5.3.2, common path of travel shall not exceed 75 ft (23 m).

20.2.6 Travel Distance to Exits.

20.2.6.1 Travel distance shall be measured in accordance with Section 7.6.

20.2.6.2 Travel distance shall comply with 20.2.6.2.1 and 20.2.6.2.2.

20.2.6.2.1 The travel distance between any point in a room and an exit shall not exceed 150 ft (46 m).

20.2.6.2.2 The maximum travel distance in 20.2.6.2.1 shall be permitted to be increased by 50 ft (15 m) in buildings protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.

20.2.7 Discharge from Exits. See 38.2.7. Exit discharge shall comply with Section 7.7.

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

20.2.9 Emergency Lighting and Essential Electrical Systems.

20.2.9.1 Emergency lighting shall be provided in accordance with Section 7.9.

20.2.9.2 Where general anesthesia or life-support equipment is used, each ambulatory health care facility shall be provided with an essential electrical system in accordance with NFPA 99, Health Care Facilities Code, unless otherwise permitted by any of the following:

(1) Where battery-operated equipment is provided and acceptable to the authority having jurisdiction

(2) Where a facility uses life-support equipment for emergency purposes only

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

20.2.11 Special Means of Egress Features.

20.2.11.1 Reserved.

20.2.11.2 Lockups. Lockups in ambulatory health care occupancies shall comply with the requirements of 22.4.5.

20.3 Protection.

20.3.1 Protection of Vertical Openings. See 38.3.1.
20.3.1.1 Vertical openings shall be enclosed or protected in accordance with Section 8.6, unless otherwise permitted by 20.3.1.2.

20.3.1.2 Unenclosed vertical openings in accordance with 8.6.9.1 shall be permitted.

20.3.1.3 Floors that are below the street floor and are used for storage or other than an ambulatory health care occupancy shall have no unprotected openings to ambulatory health care occupancy floors.

20.3.2 Protection from Hazards. See 38.3.2.

20.3.2.1* General. Hazardous areas including, but not limited to, areas used for general storage, boiler or furnace rooms, and maintenance shops that include woodworking and painting areas shall be protected in accordance with Section 8.7.

20.3.2.2 20.3.2.1 Doors. Doors to hazardous areas shall be self-closing or automatic-closing in accordance with 20.2.2.2 20.2.2.4.

20.3.2.3* High-Hazard Contents Areas. High hazard contents areas, as classified in Section 6.2, shall meet all of the following criteria:

1. The area shall be separated from other parts of the building by fire barriers having a minimum 1-hour fire resistance rating, with all openings therein protected by self-closing fire door assemblies having a minimum ¾-hour fire protection rating.

2. The area shall be protected by an automatic extinguishing system in accordance with 9.7.1.1(1) or 9.7.1.2.

20.3.2.4 20.3.2.2 Laboratories. Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered as a severe hazard shall be protected in accordance with NFPA 99, Health Care Facilities Code.

20.3.2.3 Anesthetizing Locations. Anesthetizing locations shall be protected in accordance with NFPA 99, Health Care Facilities Code.

20.3.2.4 20.3.2.4 Cooking Facilities. Cooking facilities shall be protected in accordance with 9.2.3, unless otherwise permitted by 20.3.2.6 20.3.2.5.

20.3.2.5 20.3.2.5 Domestic Cooking Equipment. Where domestic cooking equipment is used for food warming or limited cooking, protection or separation of food preparation facilities shall not be required.

20.3.2.6* 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 conditions are met:

1. Where dispensers are installed in a corridor, the corridor shall have a minimum width of 6 ft (1830 mm).

2. The maximum individual dispenser fluid capacity shall be as follows:

   a. 0.32 gal (1.2 L) for dispensers in rooms, corridors, and areas open to corridors

   b. 0.53 gal (2.0 L) for dispensers in suites of rooms

3. Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B, Code for the Manufacture and Storage of Aerosol Products.

4. Dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).

5. Not more than an aggregate 10 gal (37.8 L) of alcohol-based hand-rub solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total,
the equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment, except as otherwise provided in 20.3.2.6(6).

(6) One dispenser per room complying with 20.3.2.6 (2) or (3), and located in the room, shall not be required to be included in the aggregated quantity specified in 20.3.2.6(5).

(7) Storage of quantities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30, Flammable and Combustible Liquids Code.

(8) Dispensers shall not be installed in the following locations:
(a) Above an ignition source within a 1 in. (25 mm) horizontal distance from each side of the ignition source
(b) To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source
(c) Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source
(d) Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments.

(10) The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.

(11) Operation of the dispenser shall comply with the following criteria:
(a) The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation.
(b) Any activation of the dispenser shall occur only when an object is placed within 4 in. (100 mm) of the sensing device.
(c) An object placed within the activation zone and left in place shall not cause more than one activation.
(d) The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.
(e) The dispenser shall be designed, constructed, and operated in a manner that ensures that accidental or malicious activation of the dispensing device is minimized.
(f) The dispenser shall be tested in accordance with the manufacturer’s care and use instructions each time a new refill is installed.

20.3.3 Interior Finish. See 38.3.3.
20.3.3.1 General. Interior finish shall be in accordance with Section 10.2.
20.3.3.2 Interior Wall and Ceiling Finish.
20.3.3.2.1 Interior wall and ceiling finish material complying with Section 10.2 shall be Class A or Class B in exits and in exit access corridors.
20.3.3.2.2 Interior wall and ceiling finishes shall be Class A, Class B, or Class C in areas other than those specified in 20.3.3.2.1.
20.3.3.3 Interior Floor Finish.
20.3.3.3.1 Interior floor finish shall comply with Section 10.2.
20.3.3.3.2 Interior floor finish in exit enclosures shall be Class I or Class II.
20.3.3.3.3 Interior floor finish shall comply with 10.2.7.1 or 10.2.7.2, as applicable.
20.3.4 Detection, Alarm, and Communications Systems.
20.3.4.1 General. Ambulatory health care facilities shall be provided with fire alarm systems in accordance with Section 9.6, except as modified by 20.3.4.2 through 20.3.4.4.

20.3.4.2 Initiation. Initiation of the required fire alarm systems shall be by manual means in accordance with 9.6.2 and by means of any detection devices or detection systems required.

20.3.4.3 Notification. Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

20.3.4.3.1 Occupant Notification. Occupant notification shall be accomplished automatically, without delay, in accordance with 9.6.3 upon operation of any fire alarm activating device.

20.3.4.3.2 Emergency Forces Notification.
20.3.4.3.2.1 Fire department/Emergency forces notification shall be accomplished in accordance with 9.6.4.

20.3.4.3.2.2 Reserved.

20.3.4.4 Fire Safety Functions. Operation of any activating device in the required fire alarm system shall be arranged to accomplish automatically, without delay, any control functions required to be performed by that device. (See 9.6.5.)

20.3.5 Extinguishment Requirements. See 38.3.5.

20.3.5.1 Isolated hazardous areas shall be permitted to be protected in accordance with 9.7.1.2.

20.3.5.2 Where more than two sprinklers are installed in a single area for protection in accordance with 9.7.1.2, waterflow detection shall be provided to sound the building fire alarm or to notify, by a signal, any constantly attended location, such as PBX, security, or emergency room, at which the necessary corrective action shall be taken.

20.3.5.3 Portable fire extinguishers shall be provided in ambulatory health care facilities in accordance with 9.7.4.1.

20.3.6 Corridors.

20.3.6.1 General. See 38.3.6.

20.3.6.2 Openings.

20.3.6.1* Where access to exits is provided by corridors, such corridors shall be separated from use areas by fire barriers in accordance with Section 8.3 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 9.7.1.1(1)

20.3.6.2 Openings in corridor walls required by 20.3.6.1 to have a fire resistance rating shall be protected in accordance with Section 8.3, except as otherwise permitted in 20.3.6.2.1 or 20.3.6.2.2.

20.3.6.2.1 Miscellaneous openings, such as mail slots, pharmacy pass-through windows, laboratory pass-through windows, and cashier pass-through windows, shall be permitted to be installed in vision panels or doors without special protection, provided that both of the following criteria are met:

(1) The aggregate area of openings per room does not exceed 20 in.² (0.015 m²).
(2) The openings are installed at or below half the distance from the floor to the room ceiling.
20.3.6.2.2 For rooms protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7, the aggregate area of openings per room, as otherwise limited by 20.3.6.2.1, shall not exceed 80 in.\(^2\) (0.05 m\(^2\)).

20.3.7 Subdivision of Building Space.

20.3.7.1 Ambulatory health care facilities-occupancies shall be separated from other tenants and occupancies and shall meet all of the following requirements:

1. Walls shall have not less than a 1-hour fire resistance rating and shall extend from the floor slab below to the floor or roof slab above.
2. Doors shall be constructed of not less than 1\(\frac{3}{4}\) in. (44 mm) thick, solid-bonded wood core or the equivalent and shall be equipped with positive latches.
3. Doors shall be self-closing and shall be kept in the closed position, except when in use.
4. Any windows in the barriers shall be of fixed fire window assemblies in accordance with Section 8.3.

20.3.7.2 Every story of an ambulatory health care facility-occupancy shall be divided into not less than two smoke compartments, unless otherwise permitted by one of the following:

1. This requirement shall not apply where the area of the ambulatory health care occupancy is less than 5000 ft\(^2\) (465 m\(^2\)) per story and that area is protected by an approved automatic smoke detection system. This requirement shall not apply to facilities of less than 5000 ft\(^2\) (465 m\(^2\)) that are protected by an approved automatic smoke detection system.
2. This requirement shall not apply where the area of the ambulatory health care occupancy is less than 10,000 ft\(^2\) (929 m\(^2\)) per story and the building is protected throughout by an approved, supervised automatic sprinkler system installed in accordance with Section 9.7. This requirement shall not apply to facilities of less than 10,000 ft\(^2\) (929 m\(^2\)) that are protected throughout by an approved, supervised automatic sprinkler system installed in accordance with Section 9.7.
3. An area in an adjoining occupancy shall be permitted to serve as a smoke compartment for an ambulatory health care facility-occupancy if all of the following criteria are met:
   a. The separating wall and both compartments meet the requirements of 20.3.7.
   b. The ambulatory health care facility-occupancy is less than 22,500 ft\(^2\) (2100 m\(^2\)).
   c. Access from the ambulatory health care facility-occupancy to the other occupancy is unrestricted.

20.3.7.3 Smoke compartments shall not exceed an area of 22,500 ft\(^2\) (2100 m\(^2\)), and the travel distance from any point to reach a door in a smoke barrier shall not exceed 200 ft (61 m).

20.3.7.4 The area of an atrium separated in accordance with 8.6.7 shall not be limited in size.

20.3.7.5 Required smoke barriers shall be constructed in accordance with Section 8.5 and shall have a minimum 1-hour fire resistance rating, unless otherwise permitted by 20.3.7.6.

20.3.7.6 Smoke barriers shall be permitted to terminate at the required occupancy separation where the ambulatory health care occupancy is constructed as a separated multiple occupancy in accordance with 6.1.14.4 and the separation also meets the requirements for a smoke barrier.

20.3.7.7 Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air-conditioning systems for buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
20.3.7.8  20.3.7.7  Windows in the smoke barrier shall be of fixed fire window assemblies in accordance with Section 8.3.

20.3.7.9  20.3.7.8  Not less than 15 net ft² (1.4 net m²) per ambulatory health care facility occupant shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounges, and other low hazard areas on each side of the smoke compartment for the total number of occupants in adjoining compartments.

20.3.7.10*  20.3.7.9*  Doors in smoke barriers shall be not less than 1¾ in. (44 mm) thick, solid-bonded wood core or the equivalent and shall be self-closing or automatic-closing in accordance with 20.2.2.4.

20.3.7.11  20.3.7.10  Latching hardware shall not be required on smoke barrier cross-corridor doors.

20.3.7.12  20.3.7.11  A vision panel consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier.

20.3.7.13  20.3.7.12  Vision panels in doors in smoke barriers, if provided, shall be of fire-rated glazing in approved frames.

20.3.7.14*  20.3.7.13*  Rabbets, bevels, or astragals shall be required at the meeting edges, and stops shall be required at the head and sides of door frames in smoke barriers.

20.3.7.15  20.3.7.14  Center mullions shall be prohibited in smoke barrier door openings where pairs of cross-corridor doors are provided.

20.4  Special Provisions. See Section 38.4.

20.4.1  Limited Access or Underground Buildings. See Section 11.7, (See Section 11.7.)

20.4.2  High-Rise Buildings. High-rise buildings shall comply with Section 11.8.

20.4.3*  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 conditions are met:

1) Where dispensers are installed in a corridor, the corridor shall have a minimum width of 6 ft (1830 mm).

2) The maximum individual dispenser fluid capacity shall be as follows:

   (a) 0.32 gal (1.2 L) for dispensers in rooms, corridors, and areas open to corridors

   (b) 0.53 gal (2.0 L) for dispensers in suites of rooms

3) Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B, Code for the Manufacture and Storage of Aerosol Products.

4) Dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).

5) Not more than an aggregate 10 gal (37.8 L) of alcohol-based hand-rub solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment, except as otherwise provided in 20.3.2.8(6).

6) One dispenser per room complying with 20.3.2.8(2) or (3) 20.3.2.6(2) or (3), and located in the room, shall not be required to be included in the aggregated quantity specified in 20.3.2.8(5).
Storage of quantities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30, Flammable and Combustible Liquids Code.

Dispensers shall not be installed in the following locations:

(a) Above an ignition source within a 1 in. (25 mm) horizontal distance from each side of the ignition source
(b) To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source
(c) Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source

Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments.

The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.

Operation of the dispenser shall comply with the following criteria:

(a) The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation.
(b) Any activation of the dispenser shall occur only when an object is placed within 4 in. (100 mm) of the sensing device.
(c) An object placed within the activation zone and left in place shall not cause more than one activation.
(d) The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.
(e) The dispenser shall be designed, constructed, and operated in a manner that ensures that accidental or malicious activation of the dispensing device is minimized.
(f) The dispenser shall be tested in accordance with the manufacturer’s care and use instructions each time a new refill is installed.

20.5 Building Services.

20.5.1 Utilities. Utilities shall comply with the provisions of Section 9.1.

20.5.2 Heating, Ventilating, and Air-Conditioning.

20.5.2.1 Heating, ventilating, and air-conditioning shall comply with the provisions of Section 9.2 and shall be installed in accordance with the manufacturer’s specifications, unless otherwise modified by 20.5.2.2.

20.5.2.2 If fuel-fired, heating devices shall comply with all of the following:

(1) They shall be chimney connected or vent connected.
(2) They shall take air for combustion directly from the outside.
(3) They shall be designed and installed to provide for complete separation of the combustion system from the atmosphere of the occupied area.

20.5.2.2.1 Any heating device shall have safety features to immediately stop the flow of fuel and shut down the equipment in case of either excessive temperature or ignition failure.

20.5.2.2.2 Approved, suspended unit heaters shall be permitted in locations other than means of egress and patient treatment areas, provided that both of the following criteria are met:

(1) Such heaters are located high enough to be out of the reach of persons using the area.
(2) Such heaters are equipped with the safety features required by 20.5.2.2.1.
20.5.3 Elevators, Escalators, and Conveyors. Elevators, escalators, and conveyors shall comply with the provisions of Section 9.4.

20.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes. Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5.

20.6 Reserved.

20.7* Operating Features.

20.7.1 Evacuation and Relocation Plan and Fire Drills.

20.7.1.1 The administration of every ambulatory health care facility shall have, in effect and available to all supervisory personnel, written copies of a plan for the protection of all persons in the event of fire, for their evacuation to areas of refuge, and for their evacuation from the building when necessary.

20.7.1.2 All employees shall be periodically instructed and kept informed with respect to their duties under the plan required by 20.7.1.1.

20.7.1.3 A copy of the plan required by 20.7.1.1 shall be readily available at all times in the telephone operator’s location or at the security center.

20.7.1.4* Fire drills in ambulatory health care facilities shall include the transmission of a fire alarm signal and simulation of emergency fire conditions.

20.7.1.5 Patients shall not be required to be moved during drills to safe areas or to the exterior of the building.

20.7.1.6 Drills shall be conducted quarterly on each shift to familiarize facility personnel (nurses, interns, maintenance engineers, and administrative staff) with the signals and emergency action required under varied conditions.

20.7.1.7 When drills are conducted between 9:00 p.m. and 6:00 a.m. (2100 hours and 0600 hours), a coded announcement shall be permitted to be used instead of audible alarms.

20.7.1.8 Employees of ambulatory health care facilities shall be instructed in life safety procedures and devices.

20.7.2 Procedure in Case of Fire.

20.7.2.1* Protection of Patients.

20.7.2.1.1 For ambulatory health care facilities, the proper protection of patients shall require the prompt and effective response of ambulatory health care personnel.

20.7.2.1.2 The basic response required of staff shall include the following:

1) Removal of all occupants directly involved with the fire emergency

2) Transmission of an appropriate fire alarm signal to warn other building occupants and summon staff

3) Confinement of the effects of the fire by closing doors to isolate the fire area

4) Relocation of patients as detailed in the facility’s fire safety plan

20.7.2.2 Fire Safety Plan. A written fire safety plan shall provide for all of the following:

1) Use of alarms

2) Transmission of alarms to fire department

3) Response to alarms

4) Isolation of fire
(5) Evacuation of immediate area
(6) Evacuation of smoke compartment
(7) Preparation of floors and building for evacuation
(8) Extinguishment of fire

20.7.2.3 Staff Response.

20.7.2.3.1 All personnel shall be instructed in the use of and response to fire alarms.

20.7.2.3.2 All health care personnel shall be instructed in the use of the code phrase to ensure transmission of an alarm under any of the following conditions:

(1) When the individual who discovers a fire must immediately go to the aid of an endangered person
(2) During a malfunction of the building fire alarm system

20.7.2.3.3 Personnel hearing the code announced shall first activate the building fire alarm using the nearest fire alarm box and then shall execute immediately their duties as outlined in the fire safety plan.

20.7.3 Maintenance of Exits.

20.7.3.1 Proper maintenance shall be provided to ensure the dependability of the method of evacuation selected.

20.7.3.2 Ambulatory health care occupancies that find it necessary to lock exits shall, at all times, maintain an adequate staff qualified to release locks and direct occupants from the immediate danger area to a place of safety in case of fire or other emergency.

20.7.4* Smoking. Smoking regulations shall be adopted and shall include not less than the following provisions:

(1) Smoking shall be prohibited in any room, ward, or compartment where flammable liquids, combustible gases, or oxygen is used or stored and in any other hazardous location, and such areas shall be posted with signs that read NO SMOKING or shall be posted with the international symbol for no smoking.
(2) In ambulatory health care facilities where smoking is prohibited and signs are placed at all major entrances, secondary signs with language that prohibits smoking shall not be required.
(3) Smoking by patients classified as not responsible shall be prohibited.
(4) The requirement of 20.7.4(3) shall not apply where the patient is under direct supervision.
(5) Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted.
(6) Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted.

20.7.5 Furnishings, Mattresses, and Decorations.

20.7.5.1* Draperies, curtains, and other loosely hanging fabrics and films serving as furnishings or decorations in ambulatory health care occupancies shall be in accordance with the provisions of 10.3.1, and the following also shall apply:

(1) Such curtains shall include cubicle curtains.
(2) Such curtains shall not include curtains at showers.
20.7.5.2 Newly introduced upholstered furniture shall comply with 10.3.2.1 and one of the following provisions:

(1) The furniture shall meet the criteria specified in 10.3.3.

(2) The furniture shall be in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

20.7.5.3 Newly introduced mattresses shall comply with 10.3.2.2 and one of the following provisions:

(1) The mattresses shall meet the criteria specified in 10.3.4.

(2) The mattresses shall be in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

20.7.5.4 Combustible decorations shall be prohibited, unless one of the following criteria is met:

(1) They are flame-retardant.

(2) The decorations meet the flame propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, requirements of NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

(3) The decorations exhibit a heat release rate not exceeding 100 kW when tested in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source.

(4)* They are decorations, such as photographs and paintings, in such limited quantities that a hazard of fire development or spread is not present.

   The decorations, such as photographs, paintings, and other art, are attached directly to the walls, ceiling, and non-fire-rated doors in accordance with the following:

(a) Decorations on non-fire-rated doors do not interfere with the operation or any required latching of the door and do not exceed the area limitations of 20.7.5.4(b) or (c).

(b) Decorations do not exceed 20 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is not protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.

(c) Decorations do not exceed 30 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is protected throughout by an approved supervised automatic sprinkler system in accordance with Section 9.7.

20.7.5.5 Soiled Linen and Trash Receptacles.

20.7.5.5.1 Soiled linen or trash collection receptacles shall not exceed 32 gal (121 L) in capacity, and all of the following also shall apply:

(1) The average density of container capacity in a room or space shall not exceed 0.5 gal/ft\(^2\) (20.4 L/m\(^2\)).

(2) A capacity of 32 gal (121 L) shall not be exceeded within any 64 ft\(^2\) (6 m\(^2\)) area.

(3) Mobile soiled linen or trash collection receptacles with capacities greater than 32 gal (121 L) shall be located in a room protected as a hazardous area when not attended.

(4) Container size and density shall not be limited in hazardous areas.

20.7.5.5.2* Containers used solely for recycling clean waste or for patient records awaiting destruction shall be permitted to be excluded from the requirements of 20.7.5.5.1 where all the following conditions are met:
(1) Each container shall be limited to a maximum capacity of 96 gal (363 L), except as permitted by 20.7.5.2(2) or (3).

(2)* Containers with capacities greater than 96 gal (363 L) shall be located in a room protected as a hazardous area when not attended.

(3) Container size shall not be limited in hazardous areas.

(4) Containers for combustibles shall be labeled and listed as meeting the requirements of FM Approval Standard 6921, Containers for Combustible Waste; however, such testing, listing, and labeling shall not be limited to FM Approvals.

20.7.5.5.3 20.7.5.5.2 The provisions of 10.3.9, applicable to containers for rubbish, waste, or linen, shall not apply.

20.7.6 Maintenance and Testing. See 4.6.12. (See 4.6.12.)

20.7.7 Engineered Smoke Control Systems.

20.7.7.1 New engineered smoke control systems shall be tested in accordance with established engineering principles and shall meet the performance requirements of such testing prior to acceptance.

20.7.7.2 Following acceptance, all engineered smoke control systems shall be tested periodically in accordance with recognized engineering principles.

20.7.7.3 Test documentation shall be maintained on the premises at all times.

20.7.8 Portable Space-Heating Devices. Portable space-heating devices shall be prohibited in all ambulatory health care occupancies, unless both of the following criteria are met:

(1) Such devices are used only in nonsleeping staff and employee areas.

(2) The heating elements of such devices do not exceed 212°F (100°C).

20.7.9 Construction, Repair, and Improvement Operations.

20.7.9.1 Construction, repair, and improvement operations shall comply with 4.6.10.

20.7.9.2 The means of egress in any area undergoing construction, repair, or improvements shall be inspected daily for compliance with 7.1.10.1 and shall also comply with NFPA 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations.

Chapter 21 Existing Ambulatory Health Care Occupancies

21.1 General Requirements.

21.1.1 Application.

21.1.1.1 General.

21.1.1.1.1 The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as an ambulatory health care occupancy.

21.1.1.1.2 Administration. The provisions of Chapter 1, Administration, shall apply.

21.1.1.1.3 General. The provisions of Chapter 4, General, shall apply.

21.1.1.1.4 Ambulatory health care facilities shall comply with the provisions of Chapter 39 and this chapter, whichever are more stringent.

21.1.1.1.5 This chapter establishes life safety requirements, in addition to those required in Chapter 39, that shall apply to the design of all ambulatory health care occupancies as defined in 3.3.188.1.

21.1.1.4 21.1.1.4.6 Buildings, or sections of buildings, that primarily house patients who, in the opinion of the governing body of the facility and the governmental agency having jurisdiction, are
capable of exercising judgment and appropriate physical action for self-preservation under emergency conditions shall be permitted to comply with chapters of this Code other than Chapter 21.

21.1.1.5 21.1.1.7 It shall be recognized that, in buildings providing treatment for certain types of patients or having detention rooms or a security section, it might be necessary to lock doors and bar windows to confine and protect building inhabitants. In such instances, the authority having jurisdiction shall make appropriate modifications to those sections of this Code that would otherwise require means of egress to be kept unlocked.

21.1.1.6* 21.1.1.8* The requirements of this chapter shall apply based on the assumption that staff is available in all patient-occupied areas to perform certain fire safety functions as required in other paragraphs of this chapter.

21.1.2* Goals and Objectives. The goals and objectives of Sections 4.1 and 4.2 shall be met with due consideration for functional requirements, which are accomplished by limiting the development and spread of a fire emergency to the room of fire origin and reducing the need for occupant evacuation, except from the room of fire origin.

21.1.3 Total Concept.

21.1.3.1 All ambulatory health care facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants.

21.1.3.2 Because the safety of ambulatory health care occupants cannot be ensured adequately by dependence on evacuation of the building, their protection from fire shall be provided by appropriate arrangement of facilities; adequate, trained staff; and development of operating and maintenance procedures composed of the following:

1. Design, construction, and compartmentation
2. Provision for detection, alarm, and extinguishment
3. Fire prevention and planning, training, and drilling programs for the isolation of fire, transfer of occupants to areas of refuge, or evacuation of the building

21.1.4 Additions, Conversions, Modernization, Renovation, and Construction Operations.

21.1.4.1 Additions.

21.1.4.1.1 Additions shall be separated from any existing structure not conforming to the provisions within Chapter 21 by a fire barrier having not less than a 2-hour fire resistance rating and constructed of materials as required for the addition. (See 4.6.5 and 4.6.7.)

21.1.4.1.2 Doors in barriers required by 21.1.1.4.1.1 shall normally be kept closed, unless otherwise permitted by 21.1.1.4.1.3.

21.1.4.1.3 Doors shall be permitted to be held open if they meet the requirements of 21.2.2.2.2 21.2.2.4.

21.1.4.2 Changes of Occupancy. A change from a hospital or nursing home to an ambulatory health care occupancy shall not be considered a change in occupancy or occupancy subclassification.

21.1.4.3 Renovations, Alterations, and Modernizations. See 4.6.7. (See 4.6.7.)

21.1.4.4 Construction, Repair, and Improvement Operations. See 4.6.10. (See 4.6.10.)

21.1.2 Classification of Occupancy. See 6.1.6 and 21.1.4.2. (See 6.1.6 and 21.1.4.2.)

21.1.3 Multiple Occupancies.

21.1.3.1 Multiple occupancies shall be in accordance with 6.1.14.

21.1.3.2 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, provided both of the following are met:

1. The provision is not used for occupancy separations involving industrial and storage occupancies.
2. Smoke partitions serving as atrium walls are not permitted to serve as enclosures for hazardous areas.
21.1.3.23* Sections of ambulatory health care facilities shall be permitted to be classified as other occupancies, provided that they meet both of the following conditions:

1. They are not intended to serve ambulatory health care occupants for purposes of treatment or customary access by patients incapable of self-preservation.
2. They are separated from areas of ambulatory health care occupancies by construction having a minimum 1-hour fire resistance rating.

21.1.3.34 All means of egress from ambulatory health care occupancies that traverse nonambulatory health care spaces shall conform to the requirements of this Code for ambulatory health care occupancies, unless otherwise permitted by 21.1.3.45.

21.1.3.45 Exit through a horizontal exit into other contiguous occupancies that do not conform with ambulatory health care egress provisions but that do comply with requirements set forth in the appropriate occupancy chapter of this Code shall be permitted, provided that the occupancy does not contain high hazard contents.

21.1.3.56 Egress provisions for areas of ambulatory health care facilities that correspond to other occupancies shall meet the corresponding requirements of this Code for such occupancies, and, where the clinical needs of the occupant necessitate the locking of means of egress, staff shall be present for the supervised release of occupants during all times of use.

21.1.3.67 Any area with a hazard of contents classified higher than that of the ambulatory health care occupancy and located in the same building shall be protected as required in 21.3.23.

21.1.3.78 Non-health care–related occupancies classified as containing high hazard contents shall not be permitted in buildings housing ambulatory health care occupancies.

21.1.4 Definitions.
21.1.4.1 General. For definitions, see Chapter 3, Definitions.
21.1.4.2 Definition — Ambulatory Health Care Occupancy. See 3.3.188.1. (See 3.3.188.1.)

21.1.5 Classification of Hazard of Contents. The classification of hazard of contents shall be as defined in Section 6.2.

21.1.6 Minimum Construction Requirements.
21.1.6.1 Ambulatory health care occupancies shall be limited to the building construction types specified in Table 21.1.6.1, unless otherwise permitted by 21.1.6.6. (See 8.2.1.)

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<th>Table 21.1.6.1 Construction Type Limitations</th>
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X: Permitted. NP: Not permitted.

† Sprinklered throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7. (See 21.3.5.)

‡ See 4.6.3.

21.1.6.2 Any level below the level of exit discharge shall be separated from the level of exit discharge by not less than Type II (111), Type III (211), or Type V (111) construction (see 8.2.1), unless both of the following criteria are met:

(1) Such levels are under the control of the ambulatory health care facility.
(2) Any hazardous spaces are protected in accordance with Section 8.7.

21.1.6.3 Interior nonbearing walls in buildings of Type I or Type II construction shall be constructed of noncombustible or limited-combustible materials, unless otherwise permitted by 21.1.6.4.

21.1.6.4 Interior nonbearing walls required to have a minimum 2-hour fire resistance rating of 2-hours or less required to have a minimum 2-hour fire resistance rating shall be permitted to be fire-retardant-treated wood enclosed within noncombustible or limited-combustible materials, provided that such walls are not used as shaft enclosures.

21.1.6.5 All buildings with more than one level below the level of exit discharge shall have all such lower levels separated from the level of exit discharge by not less than Type II (111) construction.

21.1.6.6 In existing buildings, the authority having jurisdiction shall be permitted to accept construction systems of lesser fire resistance than those required by 21.1.6.1 through 21.1.6.5, provided that it can be demonstrated to the authority’s satisfaction that prompt evacuation of the facility can be achieved in case of fire or that the exposing occupancies and materials of construction present no threat of fire penetration from such occupancy to the ambulatory health care facility or to the collapse of the structure.

21.1.7 Occupant Load. See 39.1.7. The occupant load, in number of persons for whom means of egress and other provisions are required, 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.

21.2 Means of Egress Requirements.

21.2.1 General. Every aisle, passageway, corridor, exit discharge, exit location, and access shall be in accordance with Chapter 7, unless otherwise modified by 21.2.2 through 21.2.11.

21.2.2 Means of Egress Components.
21.2.2.1 Components of means of egress shall be limited to the types described in 39.2.2. Components Permitted. Means of egress components shall be limited to the types described in 21.2.2.2 through 21.2.2.12.

21.2.2.2 Doors.

21.2.2.2.1 Doors complying with 7.2.1 shall be permitted.

21.2.2.2 Special locking arrangements complying with 7.2.1.6 shall be permitted.

21.2.2.3 Elevator lobby exit access door locking in accordance with 7.2.1.6.3 shall be permitted.

21.2.2.2.2 Any door required to be self-closing shall be permitted to be held open only by an automatic release device that complies with 7.2.1.8.2. The required manual fire alarm system and the systems required by 7.2.1.8.2 shall be arranged to initiate the closing action of all such doors throughout the smoke compartment or throughout the entire facility.

21.2.2.5 Where doors in a stair enclosure are held open by an automatic release device as permitted in 21.2.2.2 21.2.2.4, initiation of a door-closing action on any level shall cause all doors at all levels in the stair enclosure to close.

21.2.2.2.4* Locks complying with 7.2.1.5.5 shall be permitted only on principal entrance/exit doors.

21.2.2.5 The re-entry provisions of 7.2.1.5.8 shall not apply to any of the following:

1. Existing ambulatory health care occupancies that are not high-rise buildings
2. Existing high-rise ambulatory health care occupancy buildings that are protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1)
3. Existing high-rise ambulatory health care occupancy buildings having approved existing means for providing stair re-entry

21.2.2.6 Delayed-egress locks complying with 7.2.1.6.1 shall be permitted.

21.2.2.7 Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted.

21.2.2.8 Elevator lobby exit access door-locking arrangements in accordance with 7.2.1.6.3 shall be permitted.

21.2.2.9 Horizontal or vertical security grilles or doors complying with 7.2.1.4(3) shall be permitted to be used as part of the required means of egress from a tenant space.

21.2.2.10 Approved existing horizontal-sliding or vertical-rolling fire doors shall be permitted in the means of egress where they comply with all of the following conditions:

1. They are held open by fusible links.
2. The fusible links are rated at not less than 165°F (74°C).
3. The fusible links are located not more than 10 ft (3050 mm) above the floor.
4. The fusible links are in immediate proximity to the door opening.
5. The fusible links are not located above a ceiling.
6. The door is not credited with providing any protection under this Code.

21.2.2.11 Revolving doors complying with 7.2.1.10 shall be permitted.

21.2.2.12* 21.2.2.6* A door in a horizontal exit shall not be required to swing in the direction of egress travel as specified in 7.2.4.3.8.1.

21.2.2.3 Stairs.

21.2.2.3.1 Stairs complying with 7.2.2 shall be permitted.

21.2.2.3.2 Spiral stairs complying with 7.2.2.2.3 shall be permitted.

21.2.2.3.3 Winders complying with 7.2.2.3.4 shall be permitted.

21.2.2.4 Smokeproof Enclosures. Smokeproof enclosures complying with 7.2.3 shall be permitted.

21.2.2.5 Horizontal Exits. Horizontal exits complying with 7.2.4 shall be permitted.

21.2.2.6 Ramps. Ramps complying with 7.2.5 shall be permitted.

21.2.2.7 Exit Passageways. Exit passageways complying with 7.2.6 shall be permitted.

21.2.2.8 Escalators and Moving Walks. Escalators and moving walks complying with 7.2.7 shall be permitted.
21.2.2.9 Fire Escape Stairs. Fire escape stairs complying with 7.2.8 shall be permitted.
21.2.2.10 Fire Escape Ladders. Fire escape ladders complying with 7.2.9 shall be permitted.
21.2.2.11 Alternating Tread Devices. Alternating tread devices complying with 7.2.11 shall be permitted.

21.2.2.12 Areas of Refuge.
21.2.2.12.1 Areas of refuge complying with 7.2.12 shall be permitted.
21.2.2.12.2 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge in 3.3.22 shall not be required.

21.2.3 Capacity of Means of Egress.
21.2.3.1 The capacity of any required means of egress shall be determined in accordance with the provisions of Section 7.3 39.2.3.
21.2.3.2 Street floor exits shall be sufficient for the occupant load of the street floor plus the required capacity of open stairs, ramps, escalators, and moving walks discharging through the street floor.
21.2.3.3 21.2.3.2 The clear width of any corridor or passageway required for exit access shall be not less than 44 in. (1120 mm).
21.2.3.4 21.2.3.3 Where minimum corridor width is 6 ft (1830 mm), projections not more than 6 in. (150 mm) from the corridor wall, above the handrail height, shall be permitted for the installation of hand-rub dispensing units in accordance with 21.3.2.8 21.3.2.6.
21.2.3.5 21.2.3.4 Doors in the means of egress from diagnostic or treatment areas, such as x-ray, surgical, or physical therapy, shall provide a clear width of not less than 32 in. (810 mm), unless such doors are existing 34 in. (865 mm) doors.

21.2.4 Number of Means of Egress.
21.2.4.1 The number of means of egress shall be in accordance with 7.4.1.1 and 7.4.1.3 through 7.4.1.6.
21.2.4.2 Not less than two exits of the types described in 21.2.2 39.2.2 that are remotely located from each other shall be provided for each floor or fire section of the building.
21.2.4.3 Any patient care room and any patient care suite of rooms of more than 2500 ft$^2$ (232 m$^2$) shall have not less than two exit access doors remotely located from each other.
21.2.4.43 Not less than two exits of the types described in 21.2.2 39.2.2 shall be accessible from each smoke compartment.
21.2.4.54 Egress from smoke compartments addressed in 21.2.4.43 shall be permitted through adjacent compartments provided that the two required egress paths are arranged so that both do not pass through the same adjacent smoke compartment but shall not require return through the compartment of fire origin.

21.2.5 Arrangement of Means of Egress. See 39.2.5.
21.2.5.1 Means of egress shall be arranged in accordance with Section 7.5.
21.2.5.2 Dead-end corridors shall not exceed 50 ft (15 m).
21.2.5.3 Limitations on common path of travel shall be in accordance with 21.2.5.3.1, 21.2.5.3.2, and 21.2.5.3.3.
21.2.5.3.1 Common path of travel shall not exceed 100 ft (30 m) on a story protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1).
21.2.5.3.2 Common path of travel shall not be limited in a single-tenant space with an occupant load not exceeding 25 people.
21.2.5.3.3 In buildings other than those complying with 21.2.5.3.1 or 21.2.5.3.2, common path of travel shall not exceed 75 ft (23 m).

21.2.6 Travel Distance to Exits.
21.2.6.1 Travel distance shall be measured in accordance with Section 7.6.
21.2.6.2 Travel distance shall comply with 21.2.6.2.1 and 21.2.6.2.2.
21.2.6.2.1 The travel distance between any point in a room and an exit shall not exceed 150 ft (46 m).
21.2.6.2.2 The maximum travel distance in 21.2.6.2.1 shall be permitted to be increased by 50 ft (15 m) in buildings protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.
21.2.7 Discharge from Exits. See 39.2.7. Exit discharge shall comply with Section 7.7.
21.2.8 Illumination of Means of Egress. Means of egress shall be illuminated in accordance with Section 7.8.
21.2.9 Emergency Lighting and Essential Electrical Systems.
21.2.9.1 Emergency lighting shall be provided in accordance with Section 7.9.
21.2.9.2 Where general anesthesia or life-support equipment is used, each ambulatory health care facility shall be provided with an essential electrical system in accordance with NFPA 99, Health Care Facilities Code, unless otherwise permitted by one of the following:
   (1) Where battery-operated equipment is provided and acceptable to the authority having jurisdiction
   (2) Where a facility uses life-support equipment for emergency purposes only
21.2.10 Marking of Means of Egress. Means of egress shall have signs in accordance with Section 7.10.
21.2.11 Special Means of Egress Features.
21.2.11.1 Reserved.
21.2.11.2 Lockups. Lockups in ambulatory health care occupancies, other than approved existing lockups, shall comply with the requirements of 23.4.5.
21.3 Protection.
21.3.1 Protection of Vertical Openings. See 39.3.1.
21.3.1.1 Vertical openings shall be enclosed or protected in accordance with Section 8.6, unless otherwise permitted by any of the following:
   (1) Unenclosed vertical openings in accordance with 8.6.9.1 shall be permitted.
   (2) Unprotected vertical openings shall be permitted in buildings complying with all of the following:
      (a) Where protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1)
      (b) Where no unprotected vertical opening serves as any part of any required means of egress
      (c) Where required exits consist of exit doors that discharge directly to the finished ground level in accordance with 7.2.1, outside stairs in accordance with 7.2.2, smokeproof enclosures in accordance with 7.2.3, or horizontal exits in accordance with 7.2.4
21.3.1.2 Floors that are below the street floor and are used for storage or other than an ambulatory health care occupancy shall have no unprotected openings to ambulatory health care occupancy floors.
21.3.2 Protection from Hazards. See 39.3.2. (See 39.3.2.)
21.3.2.1 General. Hazardous areas including, but not limited to, areas used for general storage, boiler or furnace rooms, and maintenance shops that include woodworking and painting areas shall be protected in accordance with Section 8.7.
21.3.2.2 Doors. Doors to hazardous areas shall be self-closing or automatic-closing in accordance with 21.2.2.2 21.2.2.4.
21.3.2.3 High Hazard Contents Areas. High hazard contents areas, as classified in Section 6.2, shall meet all of the following criteria:
The area shall be separated from other parts of the building by fire barriers having a minimum 1-hour fire resistance rating, with all openings therein protected by self-closing fire door assemblies having a minimum ¾-hour fire protection rating.

The area shall be protected by an automatic extinguishing system in accordance with 9.7.1.1(1) or 9.7.1.2.

**21.3.2.4 Laboratories.** Laboratories employing quantities of flammable, combustible, or hazardous materials that are considered as a severe hazard shall be protected in accordance with NFPA 99, *Health Care Facilities Code*.

**21.3.2.3 Anesthetizing Locations.** Anesthetizing locations shall be protected in accordance with NFPA 99, *Health Care Facilities Code*.

**21.3.2.5 Cooking Facilities.** Cooking facilities shall be protected in accordance with 9.2.3, unless otherwise permitted by 21.3.2.6.

**21.3.2.6 Domestic Cooking Equipment.** Where domestic cooking equipment is used for food warming or limited cooking, protection or separation of food preparation facilities shall not be required.

**21.3.2.6 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 conditions are met:

1. Where dispensers are installed in a corridor, the corridor shall have a minimum width of 6 ft (1830 mm).
2. The maximum individual dispenser fluid capacity shall be as follows:
   a. 0.32 gal (1.2 L) for dispensers in rooms, corridors, and areas open to corridors
   b. 0.53 gal (2.0 L) for dispensers in suites of rooms
3. Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B, *Code for the Manufacture and Storage of Aerosol Products*.
4. Dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).
5. Not more than an aggregate 10 gal (37.8 L) of alcohol-based hand-rub solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment, except as otherwise provided in 21.3.2.6(6).
6. One dispenser per room complying with 21.3.2.6(2) or (3), and located in the room, shall not be required to be included in the aggregated quantity specified in 21.3.2.6(5).
7. Storage of quantities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30, *Flammable and Combustible Liquids Code*.
8. Dispensers shall not be installed in the following locations:
   a. Above an ignition source within a 1 in. (25 mm) horizontal distance from each side of the ignition source
   b. To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source
   c. Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source
9. Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments.
10. The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.
11. Operation of the dispenser shall comply with the following criteria:
   a. The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation.
\( \text{(b)} \) Any activation of the dispenser shall occur only when an object is placed within 4 in. (100 mm) of the sensing device.

\( \text{(e)} \) An object placed within the activation zone and left in place shall not cause more than one activation.

\( \text{(d)} \) The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.

\( \text{(e)} \) The dispenser shall be designed, constructed, and operated in a manner that ensures that accidental or malicious activation of the dispensing device is minimized.

\( \text{(f)} \) The dispenser shall be tested in accordance with the manufacturer’s care and use instructions each time a new refill is installed.

21.3.3 **Interior Finish.** See 39.3.3.

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

21.3.3.2 **Interior Wall and Ceiling Finish.**

21.3.3.2.1 Interior wall and ceiling finish materials complying with Section 10.2 shall be Class A or Class B in exits and in exit access corridors.

21.3.3.2.2 Interior wall and ceiling finishes shall be Class A, Class B, or Class C in areas other than those specified in 21.3.3.2.1.

21.3.3.3 **Interior Floor Finish.** (No requirements Reserved.)

21.3.4 **Detection, Alarm, and Communications Systems.**

21.3.4.1 **General.** Ambulatory health care facilities shall be provided with fire alarm systems in accordance with Section 9.6, except as modified by 21.3.4.2 through 21.3.4.4.

21.3.4.2 **Initiation.** Initiation of the required fire alarm systems shall be by manual means in accordance with 9.6.2 and by means of any detection devices or detection systems required.

21.3.4.3 **Notification.** Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

21.3.4.3.1 **Occupant Notification.** Occupant notification shall be accomplished automatically, without delay, in accordance with 9.6.3 upon operation of any fire alarm activating device.

21.3.4.3.2 **Emergency Forces Notification.**

21.3.4.3.2.1 Fire department notification shall be accomplished in accordance with 9.6.4.

21.3.4.3.2.2 Smoke detection devices or smoke detection systems equipped with reconfirmation features shall not be required to automatically notify the fire department, unless the alarm condition is reconfirmed after a period not exceeding 120 seconds.

21.3.4.4 **Fire Safety Functions.** Operation of any activating device in the required fire alarm system shall be arranged to accomplish automatically, without delay, any control functions required to be performed by that device. (See 9.6.5.)

21.3.5 **Extinguishment Requirements.** See 39.3.5.

21.3.5.1 Isolated hazardous areas shall be permitted to be protected in accordance with 9.7.1.2.

21.3.5.2 For new installations in existing ambulatory health care facilities, where more than two sprinklers are installed in a single area for protection in accordance with 9.7.1.2, waterflow detection shall be provided to sound the building fire alarm or to notify, by a signal, any constantly attended location, such as PBX, security, or emergency room, at which the necessary corrective action shall be taken.

21.3.5.3 Portable fire extinguishers shall be provided in ambulatory health care facilities in accordance with 9.7.4.1.

21.3.6 **Corridors.** (No requirements Reserved)

21.3.7 **Subdivision of Building Space.**

21.3.7.1 Ambulatory health care facilities occupancies shall be separated from other tenants and occupancies and shall meet all of the following requirements:
21.3.7.2 Every story of an ambulatory health care facility occupancy shall be divided into not less than two smoke compartments, unless otherwise permitted by one of the following:

(1) This requirement shall not apply where the area of the ambulatory health care occupancy is less than 5000 ft² (465 m²) per story and that area is protected by an approved automatic smoke detection system.

(2) This requirement shall not apply where the area of the ambulatory health care occupancy is less than 10,000 ft² (929 m²) per story and the building is protected throughout by an approved, supervised automatic sprinkler system installed in accordance with Section 9.7.

(3) An area in an adjoining occupancy shall be permitted to serve as a smoke compartment for an ambulatory health care facility occupancy if all of the following criteria are met:

(a) The separating wall and both compartments meet the requirements of 21.3.7.

(b) The ambulatory health care facility occupancy is less than 22,500 ft² (2100 m²).

(c) Access from the ambulatory health care facility occupancy to the other occupancy is unrestricted.

21.3.7.3 Reserved.
21.3.7.4 Reserved.

21.3.7.5 Required smoke barriers shall be constructed in accordance with Section 8.5 and shall have a minimum ½-hour fire resistance rating, unless otherwise permitted by 21.3.7.6.

21.3.7.6 Smoke barriers shall be permitted to terminate at the required occupancy separation where the ambulatory health care occupancy is constructed as a separated multiple occupancy in accordance with 6.1.14.4.

21.3.7.67 Smoke dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating, and air-conditioning systems where adjacent smoke compartments are protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.

21.3.7.78 Windows in the smoke barrier shall be of fixed fire window assemblies in accordance with Section 8.3.

21.3.7.89 Reserved.

21.3.7.910 Doors in smoke barriers shall be not less than 1¾ in. (44 mm) thick, solid-bonded wood core or the equivalent and shall be self-closing or automatic-closing in accordance with 21.2.2.421.2.2.2.2.

21.3.7.1011 Latching hardware shall not be required on smoke barrier cross-corridor doors, and doors shall not be required to swing in the direction of egress travel.


21.4.1 Limited-Limited Access or Underground Buildings. See Section 11.7.(See Section 11.7.)

21.4.2 High-Rise Buildings.
21.4.2.1 All high-rise ambulatory health care occupancy buildings shall be provided with a reasonable degree of safety from fire, and such degree of safety shall be accomplished by one of the following means:

1. Installation of a complete, approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1)

2. Installation of an engineered life safety system complying with all of the following:
   a. The engineered life safety system shall be developed by a registered professional engineer experienced in fire and life safety systems design.
   b. The life safety system shall be approved by the authority having jurisdiction and shall be permitted to include any or all of the following systems:
      i. Partial automatic sprinkler protection
      ii. Smoke detection alarms
      iii. Smoke control
      iv. Compartmentation
      v. Other approved systems

21.4.2.2* A limited, but reasonable, time shall be permitted for compliance with any part of 21.4.2.1, commensurate with the magnitude of expenditure and the disruption of services.

21.4.2.3 In addition to the requirements of 21.4.2.1 and 21.4.2.2, all buildings, regardless of height, shall comply with all other applicable provisions of this chapter.

21.4.3 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 conditions are met:

1. Where dispensers are installed in a corridor, the corridor shall have a minimum width of 6 ft (1830 mm).

2. The maximum individual dispenser fluid capacity shall be as follows:
   a. 0.32 gal (1.2 L) for dispensers in rooms, corridors, and areas open to corridors
   b. 0.53 gal (2.0 L) for dispensers in suites of rooms

3. Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B, Code for the Manufacture and Storage of Aerosol Products.

4. Dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).

5. Not more than an aggregate 10 gal (37.8 L) of alcohol-based hand-rub solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment, except as otherwise provided in 21.4.3(6).

6. One dispenser per room complying with 21.4.3 (2) or (3), and located in the room, shall not be required to be included in the aggregated quantity specified in 21.4.3(5).

7. Storage of quantities greater than 5 gal (18.9 L) in a single smoke compartment shall meet the requirements of NFPA 30, Flammable and Combustible Liquids Code.

8. Dispensers shall not be installed in the following locations:
   a. Above an ignition source within a 1 in. (25 mm) horizontal distance from each side of the ignition source
   b. To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source
   c. Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source

9. Dispensers installed directly over carpeted floors shall be permitted only in sprinklered smoke compartments.

10. The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.
(11) Operation of the dispenser shall comply with the following criteria:
(a) The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation.
(b) Any activation of the dispenser shall occur only when an object is placed within 4 in. (100 mm) of the sensing device.
(c) An object placed within the activation zone and left in place shall not cause more than one activation.
(d) The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.
(e) The dispenser shall be designed, constructed, and operated in a manner that ensures that accidental or malicious activation of the dispensing device is minimized.
(f) The dispenser shall be tested in accordance with the manufacturer’s care and use instructions each time a new refill is installed.

21.5 Building Services.
21.5.1 Utilities.
21.5.1.1 Utilities shall comply with the provisions of Section 9.1.
21.5.1.2 Existing installations shall be permitted to be continued in service, provided that the systems do not present a serious hazard to life.

21.5.2 Heating, Ventilating, and Air-Conditioning.
21.5.2.1 Heating, ventilating, and air-conditioning shall comply with the provisions of Section 9.2 and shall be in accordance with the manufacturer’s specifications, unless otherwise modified by 21.5.2.2.
21.5.2.2 If fuel-fired, heating devices shall comply with all of the following:
(1) They shall be chimney connected or vent connected.
(2) They shall take air for combustion directly from the outside.
(3) They shall be designed and installed to provide for complete separation of the combustion system from the atmosphere of the occupied area.
21.5.2.2.1 Any heating device shall have safety features to immediately stop the flow of fuel and shut down the equipment in case of either excessive temperature or ignition failure.
21.5.2.2.2 Approved, suspended unit heaters shall be permitted in locations other than means of egress and patient treatment areas, provided that both of the following criteria are met:
(1) Such heaters are located high enough to be out of the reach of persons using the area.
(2) Such heaters are equipped with the safety features required by 21.5.2.2.1.

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

21.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes. Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5.

21.6 Reserved.
21.7* Operating Features.
21.7.1 Evacuation and Relocation Plan and Fire Drills.
21.7.1.1 The administration of every ambulatory health care facility shall have, in effect and available to all supervisory personnel, written copies of a plan for the protection of all persons in the event of fire, for their evacuation to areas of refuge, and for their evacuation from the building when necessary.
21.7.1.2 All employees shall be periodically instructed and kept informed with respect to their duties under the plan required by 21.7.1.1.
21.7.1.3 A copy of the plan required by 21.7.1.1 shall be readily available at all times in the telephone operator’s location or at the security center.
21.7.1.4* Fire drills in ambulatory health care facilities shall include the transmission of a fire alarm signal and simulation of emergency fire conditions.

21.7.1.5 Patients shall not be required to be moved during drills to safe areas or to the exterior of the building.

21.7.1.6 Drills shall be conducted quarterly on each shift to familiarize facility personnel (nurses, interns, maintenance engineers, and administrative staff) with the signals and emergency action required under varied conditions.

21.7.1.7 When drills are conducted between 9:00 p.m. and 6:00 a.m. (2100 hours and 0600 hours), a coded announcement shall be permitted to be used instead of audible alarms.

21.7.1.8 Employees of ambulatory health care facilities shall be instructed in life safety procedures and devices.

21.7.2 Procedure in Case of Fire.

21.7.2.1 Protection of Patients.

21.7.2.1.1 For ambulatory health care facilities, the proper protection of patients shall require the prompt and effective response of ambulatory health care personnel.

21.7.2.1.2 The basic response required of staff shall include the following:

1. Removal of all occupants directly involved with the fire emergency
2. Transmission of an appropriate fire alarm signal to warn other building occupants and summon staff
3. Confinement of the effects of the fire by closing doors to isolate the fire area
4. Relocation of patients as detailed in the facility’s fire safety plan

21.7.2.2 Fire Safety Plan. A written fire safety plan shall provide for all of the following:

1. Use of alarms
2. Transmission of alarms to fire department
3. Response to alarms
4. Isolation of fire
5. Evacuation of immediate area
6. Evacuation of smoke compartment
7. Preparation of floors and building for evacuation
8. Extinguishment of fire

21.7.2.3 Staff Response.

21.7.2.3.1 All personnel shall be instructed in the use of and response to fire alarms.

21.7.2.3.2 All health care personnel shall be instructed in the use of the code phrase to ensure transmission of an alarm under any of the following conditions:

1. When the individual who discovers a fire must immediately go to the aid of an endangered person
2. During a malfunction of the building fire alarm system

21.7.2.3.3 Personnel hearing the code announced shall first activate the building fire alarm using the nearest fire alarm box and then shall execute immediately their duties as outlined in the fire safety plan.

21.7.3 Maintenance of Exits.

21.7.3.1 Proper maintenance shall be provided to ensure the dependability of the method of evacuation selected.

21.7.3.2 Ambulatory health care occupancies that find it necessary to lock exits shall, at all times, maintain an adequate staff qualified to release locks and direct occupants from the immediate danger area to a place of safety in case of fire or other emergency.

21.7.4* Smoking. Smoking regulations shall be adopted and shall include not less than the following provisions:
(1) Smoking shall be prohibited in any room, ward, or compartment where flammable liquids, combustible gases, or oxygen is used or stored and in any other hazardous location, and such areas shall be posted with signs that read NO SMOKING or shall be posted with the international symbol for no smoking.

(2) In ambulatory health care facilities where smoking is prohibited and signs are placed at all major entrances, secondary signs with language that prohibits smoking shall not be required.

(3) Smoking by patients classified as not responsible shall be prohibited.

(4) The requirement of 21.7.4(3) shall not apply where the patient is under direct supervision.

(5) Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted.

(6) Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted.

21.7.5 Furnishings, Mattresses, and Decorations.

21.7.5.1* Draperies, curtains, and other loosely hanging fabrics and films serving as furnishings or decorations in ambulatory health care occupancies shall be in accordance with the provisions of 10.3.1, and the following also shall apply:

(1) Such curtains shall include cubicle curtains.

(2) Such curtains shall not include curtains at showers.

21.7.5.2 Newly introduced upholstered furniture shall comply with 10.3.2.1 and one of the following provisions:

(1) The furniture shall meet the criteria specified in 10.3.3.

(2) The furniture shall be in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

21.7.5.3 Newly introduced mattresses shall comply with 10.3.2.2 and one of the following provisions:

(1) The mattresses shall meet the criteria specified in 10.3.4.

(2) The mattresses shall be in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

21.7.5.4 Combustible decorations shall be prohibited, unless one of the following criteria is met:

(1) They are flame-retardant.

(2) The decorations meet the flame propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate requirements of NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

(3) The decorations exhibit a heat release rate not exceeding 100 kW when tested in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source.

(4)* They are decorations, such as photographs and paintings, in such limited quantities that a hazard of fire development or spread is not present. The decorations, such as photographs, paintings, and other art, are attached directly to the walls, ceiling, and non-fire-rated doors in accordance with the following:

(a) Decorations on non-fire-rated doors do not interfere with the operation or any required latching of the door and do not exceed the area limitations of 21.7.5.4(b) or (c).

(b) Decorations do not exceed 20 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is not protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.

(c) Decorations do not exceed 30 percent of the wall, ceiling, and door areas inside any room or space of a smoke compartment that is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.
21.7.5.5 Soiled Linen and Trash Receptacles.

21.7.5.5.1 Soiled linen or trash collection receptacles shall not exceed 32 gal (121 L) in capacity, and all of the following also shall apply:

1. The average density of container capacity in a room or space shall not exceed 0.5 gal/ft² (20.4 L/m²).
2. A capacity of 32 gal (121 L) shall not be exceeded within any 64 ft² (6 m²) area.
3. Mobile soiled linen or trash collection receptacles with capacities greater than 32 gal (121 L) shall be located in a room protected as a hazardous area when not attended.
4. Container size and density shall not be limited in hazardous areas.

21.7.5.5.2 Containers used solely for recycling clean waste or for patient records awaiting destruction shall be permitted to be excluded from the requirements of 21.7.5.5.1 where all the following conditions are met:

1. Each container shall be limited to a maximum capacity of 96 gal (363 L), except as permitted by 21.7.5.5.2(2) or (3).
2. Containers with capacities greater than 96 gal (363 L) shall be located in a room protected as a hazardous area when not attended.
3. Container size shall not be limited in hazardous areas.
4. Containers for combustibles shall be labeled and listed as meeting the requirements of FM Approval Standard 6921, Containers for Combustible Waste; however, such testing, listing, and labeling shall not be limited to FM Approvals.

21.7.5.5.3 The provisions of 10.3.9, applicable to containers for rubbish, waste, or linen, shall not apply.

21.7.6 Maintenance and Testing. See 4.6.12.(See 4.6.12.)

21.7.7* Engineered Smoke Control Systems.

21.7.7.1 New engineered smoke control systems shall be tested in accordance with established engineering principles and shall meet the performance requirements of such testing prior to acceptance.

21.7.7.2 Following acceptance, all engineered smoke control systems shall be tested periodically in accordance with recognized engineering principles.

21.7.7.3 Test documentation shall be maintained on the premises at all times.

21.7.8 Portable Space-Heating Devices. Portable space-heating devices shall be prohibited in all ambulatory health care occupancies, unless both of the following criteria are met:

1. Such devices are used only in nonsleeping staff and employee areas.
2. The heating elements of such devices do not exceed 212°F (100°C).

21.7.9 Construction, Repair, and Improvement Operations.

21.7.9.1 Construction, repair, and improvement operations shall comply with 4.6.10.

21.7.9.2 The means of egress in any area undergoing construction, repair, or improvements shall be inspected daily for compliance with 7.1.10.1 and shall also comply with NFPA 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations.

A.18.1.1.1.1 In determining equivalency for conversions, modernizations, renovations, or unusual design concepts of hospitals or nursing homes, the authority having jurisdiction is permitted to accept evaluations based on the health care occupancies for safety evaluation system (FSES) of NFPA 101A, Guide on Alternative Approaches to Life Safety, utilizing the parameters for new construction.

A.18.1.1.1.7 There are many reasons why doors in the means of egress in health care occupancies might need to be locked for the protection of the patients or the public. Examples of conditions that might justify door locking include dementia, mental health, infant care, pediatric care, or patients...
under court detention order requiring medical treatment in a health care facility. See 18.2.2.2.5 for details on door locking.

A.18.1.1.1.10 The Code recognizes that certain functions necessary for the life safety of building occupants — such as the detection of fire and associated products of combustion, the closing of corridor doors, the operation of manual fire alarm devices, and the removal of patients from the room of fire origin — require the intervention of facility staff. It is not the intent of 18.1.1.1.10 to specify the levels or locations of staff necessary to meet this requirement.

A.18.1.1.2 This objective is accomplished in the context of the physical facilities, the type of activities undertaken, the provisions for the capabilities of staff, and the needs of all occupants through requirements directed at the following:

(1) Prevention of ignition
(2) Detection of fire
(3) Control of fire development
(4) Confinement of the effects of fire
(5) Extinguishment of fire
(6) Provision of refuge or evacuation facilities, or both
(7) Staff reaction

A.18.1.1.4.3.3 For the purpose of this requirement, a floor that is not divided by a smoke barrier is considered one smoke compartment. Where automatic sprinklers are retrofitted into existing nonsprinklered buildings, the construction alternatives for sprinklers provided in this Code are intended to apply to the renovated area.

A.18.1.1.4.3.4 In minor rehabilitation, only the rehabilitation itself — not the entire smoke compartment or building — is required to be brought up to the requirements for new nonsprinklered facilities.

A.18.1.3.3 Doctors’ offices and treatment and diagnostic facilities that are intended solely for outpatient care and are physically separated from facilities for the treatment or care of inpatients, but that are otherwise associated with the management of an institution, might be classified as business occupancies rather than health care occupancies. Facilities that do not provide housing for patients on a 24-hour basis are required to be classified as other than health care occupancies per 18.1.1.1.7, except where services are provided routinely to four or more inpatients who are incapable of self-preservation.

A.18.1.3.45.1 It is the intent that these requirements apply to mobile, transportable, and relocatable structures (in accordance with 1.3.2) where such structures are used to provide shared medical services on an extended or a temporary basis. Where properly separated from the health care occupancy and intended to provide services simultaneously for three or fewer health care patients who are litterborne, the level of protection for such structures should be based on the appropriate occupancy classification of other chapters of this Code. Mobile, transportable, or relocatable structures that are not separated from a contiguous health care occupancy, or that are intended to provide services simultaneously for four or more health care patients who are litterborne, should be classified and designed as health care occupancies.

A.18.2.2 In planning egress, arrangements should be made to transfer patients from one section of a floor to another section of the same floor that is separated by a fire barrier or smoke barrier in such a manner that patients confined to their beds can be transferred in their beds. Where the building design will allow, the section of the corridor containing an entrance or elevator lobby should be separated from corridors leading from it by fire or smoke barriers. Such arrangement, where the lobby is centrally located, will, in effect, produce a smoke lock, placing a double barrier between the area to which patients might be taken and the area from which they need to be evacuated because of threatening smoke and fire.
A.18.2.2.4(2) Where delayed-egress locks complying with 7.2.1.6.1 are used, the provisions of 18.2.2.5 are not required.

A.18.2.2.4(3) Where access-controlled egress doors complying with 7.2.1.6.2 are used, the provisions of 18.2.2.5 are not required.

A.18.2.2.5.1 Psychiatric units, Alzheimer units, and dementia units are examples of areas with patients who might have clinical needs that justify door locking. Forensic units and detention units are examples of areas with patients who might pose a security threat. Where Alzheimer or dementia patients in nursing homes are not housed in specialized units, the provisions of 18.2.2.5.1 should not apply. (See 18.2.2.5.2.)

A.18.2.2.5.2(3) Where locked doors in accordance with 18.2.2.5.2 are proposed for an existing building that is not sprinklered throughout, the authority having jurisdiction might consider permitting the installation based on an analysis of the extent of sprinkler protection provided. Sprinklered areas should include, at a minimum, the secured compartment and compartments that the occupants of the secured compartment must travel through to egress the building.

A.18.2.2.7 In some health care occupancies, especially nursing homes, the use of murals to disguise doors has been found to be beneficial for certain patient populations. This provision is intended to apply to disguising of egress doors by painting the doors or the use of wall paper on the doors. The marking of the means of egress such as required exit signs should be clearly visible and not disguised by the mural. Where decorations are applied to the door, the requirements of 18.7 would still apply and painting a mural on the door would not be considered a decoration. Such murals should not obscure required vision panels or affect the required fire resistance rating of fire-rated door assemblies.

A.18.2.2.7(2) It is intended that the door-releasing hardware includes levers, locks, knobs, and panic bars, that are directly operated or grasped by staff.

A.18.2.2.7(3) It is intended that the door hardware that is permitted to be covered (i.e., disguised by the mural) includes items such as hinges, closers, and magnets, which would normally not be directly operated or grasped by staff.

A.18.2.2.78 It is desirable to keep doors in exit passageways, stair enclosures, horizontal exits, smoke barriers, and required enclosures around hazardous areas closed at all times to impede the travel of smoke and fire gases. Functionally, however, this involves decreased efficiency and limits patient observation by the staff of a facility. To accommodate such needs, it is practical to presume that such doors will be kept open, even to the extent of employing wood chocks and other makeshift devices. Doors in exit passageways, horizontal exits, and smoke barriers should, therefore, be equipped with automatic hold-open devices activated by the methods described, regardless of whether the original installation of the doors was predicated on a policy of keeping them closed.
A.18.2.3.4 It is not the intent that the required corridor width be maintained clear and unobstructed at all times. Projections into the required width are permitted by 7.3.2.2. It is not the intent that 18.2.3.4 supersede 7.3.2.2.

A.18.2.3.4(1) Occupant characteristics are an important factor to be evaluated in setting egress criteria. Egress components in nonpatient use areas, such as administrative office spaces, should be evaluated based on actual use. A clear corridor width of not less than 44 in. (1120 mm) is specified, assuming occupants in nonpatient areas will be mobile and capable of evacuation without assistance.

A.18.2.3.4(2) The intent of 18.2.3.4(2) is to permit limited noncontinuous projections along the corridor wall. These include hand-rub dispensing units complying with 18.3.2.6, nurse charting units, wall-mounted computers, telephones, artwork, bulletin boards, display case frames, cabinet frames, fire alarm boxes, and similar items. It is not the intent to permit the narrowing of the corridor by the walls themselves. The provision of 7.3.2.2 permits projections up to 4 ½ in. (114 mm) to be present at and below the 38 in. (965 mm) height specified in 18.2.3.4(2), and it is not the intent of 18.2.3.4(2) to prohibit such projections. Permitting projections above the 38 in. (965 mm) handrail height complies with the intent of the requirement, as such projections will not interfere with the movement of gurneys, beds, and wheelchairs. Projections below handrail height for limited items, such as fire extinguisher cabinets and recessed water coolers, also will not interfere with equipment movement.

A.18.2.3.4(3) Exit access should be arranged to avoid any obstructions to the convenient removal of nonambulatory persons carried on stretchers or on mattresses serving as stretchers.

A.18.2.3.4(4)(c) Wheeled equipment and carts in use include food service carts, housekeeping carts, medication carts, isolation carts, and similar items. Isolation carts should be permitted in the corridor only where patients require isolation precautions.

Unattended wheeled crash carts and other similar wheeled emergency equipment are permitted to be located in the corridor when “not in use,” because they need to be immediately accessible during a clinical emergency. Note that “not in use” is not the same as “in storage.” Storage is not permitted to be open to the corridor, unless it meets one of the provisions permitted in 18.3.6.1 and is not a hazardous area.

Wheeled portable patient lift or transport equipment needs to be readily available to clinical staff for moving, transferring, toileting, or relocating patients. These devices are used daily for safe handling of patients and to provide for worker safety. This equipment might not be defined as “in use” but needs to be convenient for the use of caregivers at all times.

A.18.2.3.4(5) The means for affixing the furniture can be achieved with removable brackets to allow cleaning and maintenance. Affixing the furniture to the floor or wall prevents the furniture from moving, so as to maintain a minimum 6 ft (1830 mm) corridor clear width. Affixing the furniture to the floor or wall also provides a sturdiness that allows occupants to safely transfer in and out.

A.18.2.3.4(5)(f) Examples of building service and fire protection equipment include fire extinguishers, manual fire alarm boxes, shutoff valves, and similar equipment.

A.18.2.3.4(6) The 8 ft (2440 mm) corridor width does not need to be maintained at the door or the open door leaf. A reduction for the frame and leaf is acceptable as long as the minimum clear width is provided at the door opening in the direction of egress travel. In situations where egress occurs only in one direction, it is permissible to have a single door leaf.

A.18.2.3.5(1) See A.18.2.3.4(1).

A.18.2.3.5(2) The intent of 18.2.3.5(2) is to permit limited noncontinuous projections along the corridor wall. These include hand-rub dispensing units complying with 18.3.2.6, nurse charting units, wall-mounted computers, telephones, artwork, bulletin boards, display case frames, cabinet frames, fire alarm boxes, and similar items. It is not the intent to permit the narrowing of the corridor by the
walls themselves. The provision of 7.3.2.2 permits projections up to 4 1/2 in. (114 mm) to be present at and below the 38 in. (965 mm) height specified in 18.2.3.5(2), and it is not the intent of 18.2.3.5(2) to prohibit such projections. Permitting projections above the 38 in. (965 mm) handrail height complies with the intent of the requirement, as such projections will not interfere with the movement of gurneys, beds, and wheelchairs. Projections below handrail height for limited items, such as fire extinguisher cabinets and recessed water coolers, also will not interfere with equipment movement. Other codes and standards, such as NFPA 5000®, Building Construction and Safety Code®, other building codes, and the Federal 2010 ADA Standards for Accessible Design might require cane protection for projections greater than 4 inches. It is not the intent of 18.2.3.5.2 to limit or preclude requirements found in other applicable codes and standards.

A.18.2.3.5(3) See A.18.2.3.4(3).
A.18.2.3.5(4)(c) Wheeled equipment and carts in use include food service carts, housekeeping carts, medication carts, isolation carts, and similar items. Isolation carts should be permitted in the corridor only where patients require isolation precautions.
Unattended wheeled crash carts and other similar wheeled emergency equipment are permitted to be located in the corridor when “not in use,” because they need to be immediately accessible during a clinical emergency. Note that “not in use,” is not the same as “in storage.” Storage is not permitted to be open to the corridor, unless it meets one of the provisions permitted in 18.3.6.1 and is not a hazardous area.
Wheeled portable patient lift or transport equipment needs to be readily available to clinical staff for moving, transferring, toileting, or relocating patients. These devices are used daily for safe handling of patients and to provide for worker safety. This equipment might not be defined as “in use” but needs to be convenient for the use of caregivers at all times.

A.18.2.3.5(5) The 6 ft 1830 mm) corridor width does not need to be maintained at the door or the open door leaf. A reduction for the frame and leaf is acceptable as long as the minimum clear width is provided at the door opening in the direction of egress travel. In situations where egress occurs only in one direction, it is permissible to have a single door leaf.

A.18.2.4.4 An exit is not necessary for each individual smoke compartment if there is access to an exit through other smoke compartments without passing through the smoke compartment of fire origin.

A.18.2.5.4 The term intervening rooms or spaces means rooms or spaces serving as a part of the required means of egress from another room.

A.18.2.5.6.1 For the purposes of this paragraph, it is the intent that the term habitable rooms not include individual bathrooms, closets, and similar spaces, as well as briefly occupied work spaces, such as control rooms in radiology and small storage rooms in a pharmacy.

A.18.2.5.7.1.2 Two or more contiguous suites with an aggregate area not exceeding the suite size limitations of 18.2.5.7.2.3 and 18.2.5.7.3.3 are permitted to be considered a single suite, so as not to require separation from each other.

A.18.2.5.7.1.3(A) The term intervening room means a room serving as a part of the required means of egress from another room.

A.18.2.5.7.1.3(C) Examples of suites that might be hazardous areas are medical records and pharmaceutical suites.

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A.18.2.5.7.2.1(A) For the purposes of this paragraph, it is the intent that the term habitable rooms not include individual bathrooms, closets, and similar spaces, as well as briefly occupied work spaces, such as control rooms in radiology and small storage rooms in a pharmacy.
A.18.2.5.7.2.1(B) Supervision of sleeping suites is accomplished by direct supervision by staff, smoke detection, or a combination of direct supervision and smoke detection. The following three options that follow are available for meeting the supervision requirements for patient sleeping suites having an area not exceeding 7500 ft² (700 m²):

1. Direct supervision of all sleeping rooms by staff from a normally attended location within the suite [in accordance with 18.2.5.7.2.1(B)(1)(a)].

2. Supervision of those sleeping rooms that can be directly supervised [in accordance with 18.2.5.7.2.1(B)(1)(a)] and smoke detection provided in the sleeping rooms that cannot be directly supervised [in accordance with 18.2.5.7.2.1(B)(1)(b)] as depicted in Figure A.18.2.5.7.2.1(B)-1(2).

3. Total (complete) coverage smoke detection throughout the sleeping suite [in accordance with 18.2.5.7.2.1(B)(2)] as depicted in Figure A.18.2.5.7.2.1(B)-2(3)(a).

Where the option for total (complete) coverage smoke detection is used, the provision of 9.6.2.9 requires detectors in all occupiable areas that are suitable for smoke detector operation. For example, an area subject to shower steam would not require a smoke detector.

For patient sleeping suites having an area greater than 7500 ft² (700 m²), both direct supervision by staff and total (complete) coverage smoke detection throughout the sleeping suite are required [in accordance with 18.2.5.7.2.3(C)] as depicted in Figure A.18.2.5.7.2.1(B)-3(3)(b).
Figure A.18.2.5.7.2.1(B)-1(2). All sleeping rooms provided either with direct supervision by staff or smoke detection.
Figure A.18.2.5.7.2.1(B)-2(3)(a). Supervision provided by total complete smoke detection throughout the sleeping suite.
Figure A.18.2.5.7.2.1(B)-3(3)(b). For sleeping rooms exceeding 7500 ft² (>700 m²), all sleeping rooms must be provided with direct supervision by staff and total (complete) smoke detection installed throughout the sleeping suite.
A.18.2.5.7.3.2(B) Where only one means of egress is required from the suite, it needs to be provided by a door opening directly to a corridor complying with 18.3.6.

A.18.2.5.7.3.2(C) A.18.2.5.7.3.1(C) Where the second exit access for a non-sleeping suite is through an adjacent suite, it is the intent that the adjacent suite not be considered an intervening room.

A.18.3.2.1 Provisions for the enclosure of rooms used for charging linen chutes and waste chutes or for rooms into which these chutes empty are provided in Section 9.5.

A.18.3.2.2 The hazard level of a laboratory is considered severe if quantities of flammable, combustible, or hazardous materials are present that are capable of sustaining a fire of sufficient magnitude to breach a 1-hour fire separation. See the NFPA Fire Protection Handbook for guidance.

A.18.3.2.5.2 This provision is intended to permit small appliances used for reheating, such as microwave ovens, hot plates, toasters, and nourishment centers to be exempt from the requirements for commercial cooking equipment and hazardous area protection.

A.18.3.2.5.3 The intent of A.18.3.2.5.3 is to limit the number of persons for whom meals are routinely prepared to not more than 30. Staff and feeding assistants are not included in this number.

A.18.3.2.5.3(3) The minimum airflow of 500 cfm (14,000 L/m) is intended to require the use of residential hood equipment at the higher end of equipment capacities. It is also intended to draw a sufficient amount of the cooking vapors into the grease baffle and filter system to reduce migration beyond the hood.

A.18.3.2.5.3(6) The intent of this provision is to limit cooking fuel to gas or electricity. The prohibition of solid fuels for cooking is not intended to prohibit charcoal grilling on grills located outside the facility.

A.18.3.2.5.3(7) Deep-fat frying is defined as a cooking method that involves fully immersing food in hot oil.

A.18.3.2.5.3(9) The intent of this requirement is that the fuel source for the cooktop or range is to be turned on only when staff is present or aware that the kitchen is being used. The timer function is meant to provide an additional safeguard if the staff forgets to deactivate the cooktop or range. If a cooking activity lasts longer than 120 minutes, the timer would be required to be manually reset.

A.18.3.2.5.3(11) Protection of the cooktop or range is accomplished by the sprinklers that are required in the space and the required cooktop hood fire suppression system. The smoke alarms are intended to notify staff who might not be in the immediate area. The intent of requiring smoke alarms instead of smoke detectors is to prevent false alarms from initiating the building fire alarm system and notifying the fire department. Smoke alarms should be maintained a minimum of 20 ft (6.1 m) away from the cooktop or range as studies have shown this distance to be the threshold for significantly reducing false nuisance alarms caused by cooking. The intent of the interconnected smoke alarms, with silence feature, is that while the devices would alert staff members to a potential problem, if it is a false nuisance alarm, the staff members can use the silence feature instead of disabling the alarm. The referenced study indicates that nuisance alarms are reduced with photoelectric smoke alarms.
Providing two, interconnected alarms provides a safety factor since they are not electrically supervised by the fire alarm system. *(Smoke Alarms – Pilot Study of Nuisance Alarms Associated with Cooking)*

A.18.3.2.5.3(12) The provision of 18.3.2.5.3(12) recognizes that it is more important to maintain the 20-ft (6.1-m) minimum spacing criterion between the smoke alarm and the cooktop or range, to minimize nuisance alarms, than to assure that the smoke alarm is located within the kitchen area itself.

A.18.3.2.5.3(13) The requirements of 18.3.2.5.3(13) are intended to allow the local staff to silence and reset the system smoke detector without the assistance of the engineering or maintenance personnel. This provision is not intended to require the system smoke detector to initiate a building-wide occupant alarm signal or to notify the emergency forces.

A.18.3.2.5.4 The provisions of 18.3.2.5.4 differ from those of 18.3.2.5.3, as they apply to cooking equipment that is separated from the corridor.

A.18.3.2.5.5 The provision of 18.3.2.5.5 clarifies that protected commercial cooking equipment does not require an enclosure (separation) as a hazardous area in accordance with Section 8.7, as is required by 18.3.2.1.

A.18.3.2.6 Extensive research, including fire modeling, has indicated that alcohol-based hand-rub solutions can be safely installed in corridors of healthcare facilities, provided that certain other precautions are taken. The total quantities of flammable liquids in any area should comply with the provisions of other recognized codes, including NFPA 1, *Fire Code*, and NFPA 30, *Flammable and Combustible Liquids Code*. In addition, special consideration should be given to the following:

(1) Obstructions created by the installation of hand-rub solution dispensers
(2) Location of dispensers with regard to adjacent combustible materials and potential sources of ignition, especially where dispensers are mounted on walls of combustible construction
(3) Requirements for other fire protection features, including complete automatic sprinkler protection, to be installed throughout the compartment
(4) Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser

A.18.3.3.2 The reductions in class of interior finish prescribed by 10.2.8.1 are permitted to be used.
With automatic sprinkler protection required throughout new health care facilities and quick-response sprinklers required in smoke compartments containing patient sleeping rooms, a fire and its life-threatening byproducts can be reduced, thereby allowing the defend-in-place concept to continue. The difficulty in maintaining the proper integrity of life safety elements has been considered, and it has been judged that the probability of a sprinkler system operating as designed is equal to or greater than other life safety features.

A.18.3.5.6 The requirements for use of quick-response sprinklers intend that quick-response sprinklers be the predominant type of sprinkler installed in the smoke compartment. It is recognized, however, that quick-response sprinklers might not be approved for installation in all areas, such as those where NFPA 13, Standard for the Installation of Sprinkler Systems, requires sprinklers of the intermediate- or high-temperature classification. It is not the intent of the 18.3.5.6 requirements to prohibit the use of standard sprinklers in limited areas of a smoke compartment where intermediate- or high-temperature sprinklers are required.

Residential sprinklers are considered acceptable in patient sleeping rooms of all health care facilities, even though not specifically listed for this purpose in all cases. Where the installation of quick-response sprinklers is impracticable in patient sleeping room areas, appropriate equivalent protection features acceptable to the authority having jurisdiction should be provided. It is recognized that the use of quick-response sprinklers might be limited in facilities housing certain types of patients or by the installation limitations of quick-response sprinklers.

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A.18.3.5.10 Although this exception is currently not recognized by NFPA 13, Standard for the Installation of Sprinkler Systems, a proposal for such exemption has been submitted for consideration by the Technical Committee on Sprinkler System Installation Criteria. This exception is limited to hospitals, as nursing homes and many limited care facilities might have more combustibles within the closets. The limited amount of clothing found in the small clothes closets in hospital patient rooms is typically far less than the amount of combustibles in casework cabinets that do not require sprinkler protection, such as nurse servers. In many hospitals, especially new hospitals, it is difficult to make a distinction between clothes closets and cabinet work. The exception is far more restrictive than similar exceptions for hotels and apartment buildings. NFPA 13, Standard for the Installation of Sprinkler Systems, already permits the omission of sprinklers in wardrobes [see 8.1.1(7) of NFPA 13]. It is not the intent of 18.3.5.10 to affect the wardrobe provisions of NFPA 13. It is the intent that the sprinkler protection in the room covers the closet as if there were no door on the closet. (See 8.5.3.2.3 of NFPA 13.)

A.18.3.5.11 For the proper operation of sprinkler systems, cubicle curtains and sprinkler locations need to be coordinated. Improperly designed systems might obstruct the sprinkler spray from reaching the fire or might shield the heat from the sprinkler. Many options are available to the designer including, but not limited to, hanging the cubicle curtains 18 in. (455 mm) below the sprinkler deflector; using a ½ in. (13 mm) diagonal mesh or a 70 percent open weave top panel that extends 18 in. (455 mm) below the sprinkler deflector; or designing the system to have a horizontal and minimum vertical distance that meets the requirements of NFPA 13, Standard for the Installation of Sprinkler Systems. The test data that form the basis of the NFPA 13 requirements are from fire tests with sprinkler discharge that penetrated a single privacy curtain.

A.18.3.6.1(1)(a) The presence of stored combustible materials in a room or space open to the corridor does not necessarily result in the room or space being classified as a hazardous area. In some circumstances, the amount and type of combustibles might result in the room or space being classified as a hazardous area by the authority having jurisdiction.
<table>
<thead>
<tr>
<th><strong>A.18.3.6.1(3)</strong></th>
<th>A typical nurses’ station would normally contain one or more of the following with associated furniture and furnishings:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Charting area</td>
</tr>
<tr>
<td>(2)</td>
<td>Clerical area</td>
</tr>
<tr>
<td>(3)</td>
<td>Nourishment station</td>
</tr>
<tr>
<td>(4)</td>
<td>Storage of small amounts of medications, medical equipment and supplies, clerical supplies, and linens</td>
</tr>
<tr>
<td>(5)</td>
<td>Patient monitoring and communication equipment</td>
</tr>
<tr>
<td><strong>A.18.3.6.2</strong></td>
<td>It is the intent of the Code that there be no required fire resistance or area limitations for vision panels in corridor walls and doors.</td>
</tr>
<tr>
<td><strong>A.18.3.6.2.3</strong></td>
<td>While a corridor wall is required to form a barrier to limit the transfer of smoke, such a barrier is not required to be either a smoke barrier or a smoke partition — two terms for which specific Code definitions and requirements apply.</td>
</tr>
<tr>
<td><strong>A.18.3.6.3</strong></td>
<td>While it is recognized that closed doors serve to maintain tenable conditions in a corridor and adjacent patient rooms, such doors, which, under normal or fire conditions, are self-closing, might create a special hazard for the personal safety of a room occupant. Such closed doors might present a problem of delay in discovery, confining fire products beyond tenable conditions.</td>
</tr>
<tr>
<td><strong>A.18.3.6.3.1</strong></td>
<td>Gasketing of doors should not be necessary to achieve resistance to the passage of smoke if the door is relatively tight-fitting.</td>
</tr>
<tr>
<td><strong>A.18.3.6.3.10</strong></td>
<td>Doors should not be blocked open by furniture, door stops, chocks, tie-backs, drop-down or plunger-type devices, or other devices that necessitate manual unlatching or releasing action to close. Examples of hold-open devices that release when the door is pushed or pulled are friction catches or magnetic catches.</td>
</tr>
<tr>
<td><strong>A.18.3.6.3.12</strong></td>
<td>It is not the intent of 18.3.6.3.12 to prohibit the application of push plates, hardware, or other attachments on corridor doors in health care occupancies.</td>
</tr>
<tr>
<td><strong>A.18.3.6.5.1</strong></td>
<td>It is not the intent of 18.3.6.5.1 to permit mail slots or pass-through openings in doors or walls of rooms designated as a hazardous area.</td>
</tr>
<tr>
<td><strong>A.18.3.7</strong></td>
<td>See A.18.2.2.</td>
</tr>
<tr>
<td><strong>A.18.3.7.3(2)</strong></td>
<td>Where the smoke control system design requires dampers so that the system will function effectively, it is not the intent of the provision to permit the damper to be omitted.</td>
</tr>
<tr>
<td></td>
<td>This provision is not intended to prevent the use of plenum returns where ducting is used to return air from a ceiling plenum through smoke barrier walls. Short stubs or jumper ducts are not acceptable. Ducting is required to connect at both sides of the opening and to extend into adjacent spaces away from the wall. The intent is to prohibit open-air transfers at or near the smoke barrier walls.</td>
</tr>
</tbody>
</table>
A.18.3.7.6 Smoke barrier doors are intended to provide access to adjacent zones. The pair of cross-corridor doors are required to be opposite swinging. Access to both zones is required. It is not the intent of 18.3.7.6 to prohibit the application of push plates, hardware, or other attachments on some barrier doors in health care occupancies. The provision of 18.3.7.6 requires the door leaves to be of substantial construction that is sufficient to resist fire for 20 minutes. Non-labeled 1 3/4 in. (44-mm) solid, bonded wood-core doors that are used in place of labeled 20-minute fire doors are not subject to the requirements of NFPA 80, Standard for Fire Doors and Other Opening Protective Means, therefore, nonrated factory or field-applied protective plates unlimited in height are permitted.

A.18.3.7.8 Smoke barriers might include walls having door openings other than cross-corridor doors. There is no restriction in the Code regarding which doors or how many doors form part of a smoke barrier. For example, doors from the corridor to individual rooms are permitted to form part of a smoke barrier. Split astragals (i.e., astragals installed on both door leaves) are also considered astragals.

A.18.3.7.9 It is not the intent to require the frame to be a listed assembly.

A.18.4.3 Extensive research, including fire modeling, has indicated that alcohol-based hand-rub solutions can be safely installed in corridors of health care facilities, provided that certain other precautions are taken. The total quantities of flammable liquids in any area should comply with the provisions of other recognized codes, including NFPA 1, Fire Code, and NFPA 30, Flammable and Combustible Liquids Code. In addition, special consideration should be given to the following:

1. Obstructions created by the installation of hand-rub solution dispensers
2. Location of dispensers with regard to adjacent combustible materials and potential sources of ignition, especially where dispensers are mounted on walls of combustible construction
3. Requirements for other fire protection features, including complete automatic sprinkler protection, to be installed throughout the compartment
4. Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser

A.18.4.3.1 For example, the provisions of 18.1.1.4.3.1(2) and 18.1.1.4.3.4 do not require the installation of sprinklers if the modification involves less than 50 percent of the area of the smoke compartment and less than 4500 ft² (420 m²) of the area of the smoke compartment.

A.18.5.2.2 For both new and existing buildings, it is the intent to permit the installation and use of fireplace stoves and room heaters utilizing solid fuel as defined in NFPA 211, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances, provided that all such devices are installed, maintained, and used in accordance with the appropriate provisions of that standard and all manufacturers’ specifications. These requirements are not intended to permit freestanding solid fuel–burning appliances such as freestanding wood-burning stoves.

A.18.5.2.3(2)(d) The glass front of a direct-vent fireplace can become extremely hot. Barriers such as screens or mesh installed over the direct-vent glass help reduce the risk of burn from touching the glass.

A.18.5.2.3(2)(e) The intent of locating controls in a restricted location is to ensure staff is aware of use of the fireplace and to prevent unauthorized use. Examples of locked controls are a keyed switch or locating the switch in a staff-controlled location such as a staff station.

A.18.7 Health care occupants have, in large part, varied degrees of physical disability, and their removal to the outside, or even their disturbance caused by moving, is inexpedient or impractical in
many cases, except as a last resort. Similarly, recognizing that there might be an operating necessity
for the restraint of the mentally ill, often by use of barred windows and locked doors, fire exit drills are
usually extremely disturbing, detrimental, and frequently impracticable.

In most cases, fire exit drills, as ordinarily practiced in other occupancies, cannot be conducted in
health care occupancies. Fundamentally, superior construction, early discovery and extinguishment
of incipient fires, and prompt notification need to be relied on to reduce the occasion for evacuation of
buildings of this class to a minimum.

**A.18.7.1.4** Many health care occupancies conduct fire drills without disturbing patients by choosing
the location of the simulated emergency in advance and by closing the doors to patients’ rooms or
wards in the vicinity prior to initiation of the drill. The purpose of a fire drill is to test and evaluate the
efficiency, knowledge, and response of institutional personnel in implementing the facility fire
emergency plan emergency action plan. Its purpose is not to disturb or excite patients. Fire drills
should be scheduled on a random basis to ensure that personnel in health care facilities are drilled
not less than once in each 3-month period.

Drills should consider the ability to move patients to an adjacent smoke compartment. Relocation can
be practiced using simulated patients or empty wheelchairs.

**A.18.7.2.1** Each facility has specific characteristics that vary sufficiently from other facilities to
prevent the specification of a universal emergency procedure. The recommendations that follow,
however, contain many of the elements that should be considered and adapted, as appropriate, to the
individual facility.

Upon discovery of fire, personnel should immediately take the following action:

1. If any person is involved in the fire, the discoverer should go to the aid of that person, calling
   aloud an established code phrase, which provides for both the immediate aid of any endangered
   person and the transmission of an alarm.

2. Any person in the area, upon hearing the code called aloud, should activate the building fire
   alarm using the nearest manual fire alarm box.

3. If a person is not involved in the fire, the discoverer should activate the building fire alarm
   using the nearest manual fire alarm box.

4. Personnel, upon hearing the alarm signal, should immediately execute their duties as outlined
   in the facility fire safety plan.

5. The telephone operator should determine the location of the fire as indicated by the audible
   signal.

6. In a building equipped with an uncoded alarm system, a person on the floor of fire origin
   should be responsible for promptly notifying the facility telephone operator of the fire location.

7. If the telephone operator receives a telephone alarm reporting a fire from a floor, the operator
   should regard that alarm in the same fashion as an alarm received over the fire alarm system and
   should immediately notify the fire department and alert all facility personnel of the place of fire and its
   origin.

8. If the building fire alarm system is out of order, any person discovering a fire should
   immediately notify the telephone operator by telephone, and the operator should then transmit this
   information to the fire department and alert the building occupants.

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**A.18.7.3.3** The purpose of this requirement is to provide a means for building designers, occupants,
and operators to clearly designate approved egress corridors that can be identified even though
physical or other obvious barriers might not be present to indicate their location. Floor plans used to
satisfy this requirement might incorporate more than one function and more than one smoke
compartment of the building, provided egress corridors are clearly identified where no fixed barriers
are present. Such plans should be accessible to the authority having jurisdiction but should not be required to be posted.

A.18.7.4 The most rigid discipline with regard to prohibition of smoking might not be nearly as effective in reducing incipient fires from surreptitious smoking as the open recognition of smoking, with provision of suitable facilities for smoking. Proper education and training of the staff and attendants in the ordinary fire hazards and their abatement is unquestionably essential. The problem is a broad one, varying with different types and arrangements of buildings; the effectiveness of rules of procedure, which need to be flexible, depends in large part on the management.

A.18.7.5.1 In addition to the provisions of 10.3.1, which deal with ignition resistance, additional requirements with respect to the location of cubicle curtains relative to sprinkler placement are included in NFPA 13, *Standard for the Installation of Sprinkler Systems*.

First Revision No. 541: NFPA 101-2012 [FR 3041: FileMaker]

A.18.7.5.6(2) The user should verify that the products meet the referenced test methods of NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textile and Films*, and not the small-scale test procedure that was previously eliminated from NFPA 701.

A.18.7.5.6(4) The percentage of decorations should be measured against the area of any wall or ceiling, not the aggregate total of walls, ceilings, and doors. The door is considered part of the wall. The decorations must be located such that they do not interfere with the operation of any door, sprinkler, smoke detector, or any other life safety equipment. Other art might include hanging objects or three-dimensional items.

A.18.7.5.7.1(3) It is not the intent to permit collection receptacles with a capacity greater than 32 gal (121 L) to be positioned at or near a nurses' station based on the argument that such nurses' station is constantly attended. The large collection receptacle itself needs to be actively attended by staff. Staff might leave the large receptacle in the corridor outside a patient room while entering the room to collect soiled linen or trash, but staff is expected to return to the receptacle, move on to the next room, and repeat the collection function. Where staff is not actively collecting material for placement in the receptacle, the receptacle is to be moved to a room protected as a hazardous area.

A.18.7.5.7.2 It is the intent that this provision permits recycling of bottles, cans, paper and similar clean items that do not contain grease, oil, flammable liquids, or significant plastic materials using larger containers or several adjacent containers and not require locating such containers in a room protected as a hazardous area. Containers for medical records awaiting shredding are often larger than 32 gal (121 L). These containers are not to be included in the calculations and limitations of 18.7.5.7.1. There is no limit on the number of these containers, as FM Approval Standard 6921, *Containers for Combustible Waste*, ensures that the fire will not spread outside of the container. FM approval standards are written for use with FM Approvals. The tests can be conducted by any approved laboratory. The portions of the standard referring to FM Approvals are not included in this reference.

A.18.7.5.7.2(2) See 18.7.5.7.1(3).

First Revision No. 542: NFPA 101-2012 [FR 3043: FileMaker]

A.18.7.8 Portable space heaters complying with 18.7.8 should be permitted to be located in office areas, nurses stations, and other similar non-patient nonpatient spaces within the same smoke compartment as patient sleeping rooms.

A.19.1.1.1 In determining equivalency for existing hospitals or nursing homes, the authority having jurisdiction is permitted to accept evaluations based on the health care occupancies fire safety evaluation system (FSES) of NFPA 101A, *Guide on Alternative Approaches to Life Safety*, utilizing the parameters for existing buildings.
A.19.1.1.1.7 There are many reasons why doors in the means of egress in health care occupancies might need to be locked for the protection of the patients or the public. Examples of conditions that might justify door locking include dementia, mental health, infant care, pediatric care, or patients under court detention order requiring medical treatment in a health care facility. See 19.2.2.2.5 for details on door locking.

A.19.1.1.1.10 The Code recognizes that certain functions necessary for the life safety of building occupants — such as the detection of fire and associated products of combustion, the closing of corridor doors, the operation of manual fire alarm devices, and the removal of patients from the room of fire origin — require the intervention of facility staff. It is not the intent of 19.1.1.1.10 to specify the levels or locations of staff necessary to meet this requirement.

A.19.1.1.2 This objective is accomplished in the context of the physical facilities, the type of activities undertaken, the provisions for the capabilities of staff, and the needs of all occupants through requirements directed at the following:

(1) Prevention of ignition
(2) Detection of fire
(3) Control of fire development
(4) Confinement of the effects of fire
(5) Extinguishment of fire
(6) Provision of refuge or evacuation facilities, or both
(7) Staff reaction

A.19.1.1.4.3.3 For the purpose of this requirement, a floor that is not divided by a smoke barrier is considered one smoke compartment. Where automatic sprinklers are retrofitted into existing nonsprinklered buildings, the construction alternatives for sprinklers provided in this Code are intended to apply to the renovated area.

A.19.1.1.4.3.4 In minor rehabilitation, only the rehabilitation itself is required to be brought up to the requirements for new nonsprinklered facilities, not the entire smoke compartment or building.

A.19.1.3.4 Doctors’ offices and treatment and diagnostic facilities that are intended solely for outpatient care and are physically separated from facilities for the treatment or care of inpatients, but that are otherwise associated with the management of an institution, might be classified as business occupancies rather than health care occupancies. Facilities that do not provide housing for patients on a 24-hour basis are required to be classified as other than health care occupancies per 19.1.1.1.7, except where services are provided routinely to four or more inpatients who are incapable of self-preservation.

A.19.1.4.5.1 It is the intent of the Code that these requirements apply to mobile, transportable, and relocatable structures (in accordance with 1.3.2) when such structures are used to provide shared medical services on an extended or a temporary basis. Where properly separated from the health care occupancy and intended to provide services simultaneously for three or fewer health care patients who are litterborne, the level of protection for such structures should be based on the appropriate occupancy classification of other chapters of this Code. Mobile, transportable, or relocatable structures that are not separated from a contiguous health care occupancy, or that are intended to provide services simultaneously for four or more health care patients who are litterborne, should be classified and designed as health care occupancies.

A.19.1.6.2 Unoccupied space, for the purposes of 19.1.6.2(3), is space not normally occupied by persons, fuel-fired equipment, or hazardous contents.

A.19.2.2.2.4(2) Where delayed-egress locks complying with 7.2.1.6.1 are used, the provisions of 19.2.2.2.5 are not required.

A.19.2.2.2.4(3) Where access-controlled egress doors complying with 7.2.1.6.2 are used, the provisions of 19.2.2.2.5 are not required.
A.19.2.2.5.1 Psychiatric units, Alzheimer units, and dementia units are examples of areas with patients who might have clinical needs that justify door locking. Forensic units and detention units are examples of areas with patients who might pose a security threat. Where Alzheimer or dementia patients in nursing homes are not housed in specialized units, the provisions of 19.2.2.5.1 should not apply. (See 19.2.2.5.2.)

A.19.2.2.5.2 Pediatric units, maternity units, and emergency departments are examples of areas where patients might have special needs that justify door locking. Door locking arrangements should be permitted to reduce the risk of abduction of infants and children who are patients.

A.19.2.2.5.2(3) Where locked doors in accordance with 19.2.2.5.2 are proposed for an existing building that is not sprinklered throughout, the authority having jurisdiction might consider permitting the installation based on an analysis of the extent of sprinkler protection provided. Sprinklered areas should include, at a minimum, the secured compartment and compartments that the occupants of the secured compartment must travel through to egress the building.

A.19.2.2.7 In some health care occupancies, especially nursing homes, the use of murals to disguise doors has been found to be beneficial for certain patient populations. This provision is intended to apply to disguising of egress doors by painting the doors or the use of wall paper on the doors. The marking of the means of egress such as required exit signs should be clearly visible and not disguised by the mural. Where decorations are applied to the door, the requirements of 19.7 would still apply and painting a mural on the door would not be considered a decoration. Such murals should not obscure required vision panels or affect the required fire resistance rating of fire-rated door assemblies.

A.19.2.2.7(2) It is intended that the door releasing hardware includes levers, locks, knobs, and panic bars that are directly operated or grasped by staff.

A.19.2.2.7(3) It is intended that the door hardware that is permitted to be covered (i.e., disguised by the mural) includes items such as hinges, closers, and magnets, which would normally not be directly operated or grasped by staff.

A.19.2.2.78 It is desirable to keep doors in exit passageways, stair enclosures, horizontal exits, smoke barriers, and required enclosures around hazardous areas closed at all times to impede the travel of smoke and fire gases. Functionally, however, this involves decreased efficiency and limits patient supervision by the staff of a facility. To accommodate such needs, it is practical to presume that such doors will be kept open, even to the extent of employing wood chocks and other makeshift devices. Doors in exit passageways, horizontal exits, and smoke barriers should, therefore, be equipped with automatic hold-open devices actuated by the methods described, regardless of whether the original installation of the doors was predicated on a policy of keeping them closed.

A.19.2.2.910 Doors to the enclosures of interior stair exits should be arranged to open from the stair side at not less than every third floor so that it will be possible to leave the stairway at such floor if fire renders the lower part of the stair unusable during egress or if occupants seek refuge on another floor.

A.19.2.2.5.3 The waiver of the requirement for doors to swing in the direction of egress travel is based on the assumption that, in this occupancy, there is no possibility of a panic rush that might prevent the opening of doors that swing against egress travel.

A desirable arrangement, which is possible with corridors 8 ft (2440 mm) or more in width, is to have two 42 in. (1070 mm) doors, normally closed, each swinging with the egress travel (in opposite directions).
A.19.2.3.4 It is not the intent that the required corridor width be maintained clear and unobstructed at all times. Projections into the required width are permitted by 7.3.2.2. It is not the intent that 19.2.3.4 supersede 7.3.2.2. Existing corridors more than 48 in. (1220 mm) in width are not permitted to be reduced in width, unless they exceed the width requirements of 18.2.3.4 or 18.2.3.5. (See 4.6.7.4, 4.6.7.5, and 4.6.12.2.)

A.19.2.3.4(2) The intent of 19.2.3.4(2) is to permit limited noncontinuous projections along the corridor wall. These include hand-rub dispensing units complying with 19.3.2.6, nurse charting units, wall-mounted computers, telephones, artwork, bulletin boards, display case frames, fire alarm boxes, and similar items. It is not the intent to permit the narrowing of the corridor by the walls themselves. The provision of 7.3.2.2 permits projections up to 4 ½ in. (114 mm) to be present at and below the 38 in. (965 mm) handrail height, and it is not the intent of 19.2.3.4(2) to prohibit such projections.

A.19.2.3.4(4)(c) Wheeled equipment and carts in use include food service carts, housekeeping carts, medication carts, isolation carts, and similar items. Isolation carts should be permitted in the corridor only where patients require isolation precautions. Unattended wheeled crash carts and other similar wheeled emergency equipment are permitted to be located in the corridor when “not in use,” because they need to be immediately accessible during a clinical emergency. Note that “not in use” is not the same as “in storage.” Storage is not permitted to be open to the corridor, unless it meets one of the provisions permitted in 19.3.6.1 and is not a hazardous area.

Wheeled portable patient lift or transport equipment needs to be readily available to clinical staff for moving, transferring, toileting, or relocating patients. These devices are used daily for safe handling of patients and to provide for worker safety. This equipment might not be defined as “in use” but needs to be convenient for the use of caregivers at all times.

A.19.2.3.4(5) The means for affixing the furniture can be achieved with removable brackets to allow cleaning and maintenance. Affixing the furniture to the floor or wall prevents the furniture from moving, so as to maintain a minimum 6 ft (1830 mm) corridor clear width. Affixing the furniture to the floor or wall also provides a sturdiness that allows occupants to safely transfer in and out.

A.19.2.3.4(5)(f) Examples of building service and fire protection equipment include fire extinguishers, manual fire alarm boxes, shutoff valves, and similar equipment.

A.19.2.4.4 An exit is not necessary for each individual smoke compartment if there is access to an exit through other smoke compartments without passing through the smoke compartment of fire origin.

A.19.2.5.2 Every exit or exit access should be arranged, if practical and feasible, so that no corridor has a dead end exceeding 30 ft (9.1 m).

A.19.2.5.4 The term intervening rooms or spaces means rooms or spaces serving as a part of the required means of egress from another room.

A.19.2.5.6.1 For the purposes of this paragraph, it is the intent that the term habitable rooms not include individual bathrooms, closets, and similar spaces, as well as briefly occupied work spaces, such as control rooms in radiology and small storage rooms in a pharmacy.

A.19.2.5.7.1.2 Two or more contiguous suites with an aggregate area not exceeding the suite size limitation of 19.2.5.7.2.3 and 19.2.5.7.3.3 are permitted to be considered a single suite, so as not to require separation from each other. The intent of 19.2.5.7.1.2(2) is to continue to permit suites that have smoke-resisting walls separating them from the rest of the building, even though the walls might not have a fire resistance rating. This requirement includes walls that comply with 19.3.6.2.4, even though sprinkler protection is not provided.

A.19.2.5.7.1.3(A) The term intervening room means a room serving as a part of the required means of egress from another room.
A.19.2.5.7.1.3(C) Examples of suites that might be hazardous areas are medical records and pharmaceutical suites.

A.19.2.5.7.1.3(D) It is the intent that the provision of 19.2.5.7.1.3(D) apply only where the quantities of combustibles occupy an area exceeding 50 ft$^2$ (4.6 m$^2$) so as to be a hazardous contents area. Where quantities of combustibles occupy less than 50 ft$^2$ (4.6 m$^2$), there is no restriction on quantity.

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A.19.2.5.7.2.1(A) For the purposes of this paragraph, it is the intent that the term "habitable rooms" not include individual bathrooms, closets, and similar spaces, as well as briefly occupied work spaces, such as control rooms in radiology and small storage rooms in a pharmacy.

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A.19.2.5.7.2.1(B) Supervision of existing sleeping suites is accomplished by direct supervision by staff, automatic smoke detection, or a combination of direct supervision and smoke detection. The following three options that follow are available for meeting the supervision requirements for patient sleeping suites having an area not exceeding 5000 ft$^2$ (460 m$^2$):

1. Direct supervision of all sleeping rooms by staff from a normally attended location within the suite [in accordance with 19.2.5.7.2.1(B)(1)(a)].

2. Supervision of those sleeping rooms that can be directly supervised [in accordance with 19.2.5.7.2.1(B)(1)(a)] and automatic smoke detection provided in the sleeping rooms that cannot be directly supervised [in accordance with 19.2.5.7.2.1(B)(1)(b)] as depicted in Figure A.19.2.5.7.2.1(B)-1(2).

3. Total (complete) coverage automatic smoke detection throughout the sleeping suite [in accordance with 19.2.5.7.2.1(B)(2)] as depicted in Figure A.19.2.5.7.2.1(B)-2(3)(a).

Where the option for total (complete) coverage automatic smoke detection is used, the provision of 9.6.2.9 requires detectors in all occupiable areas that are suitable for smoke detector operation. For example, an area subject to shower steam would not require a smoke detector.

For patient sleeping suites having an area greater than 5000 ft$^2$ (460 m$^2$) but not greater than 7500 ft$^2$ (700 m$^2$), sprinkler protection is required throughout the suite and the supervision requirements of 19.2.5.7.2.1 also apply. Such protection might take the form of standard-standard-response sprinklers in accordance with 19.3.5.7 or quick-quick-response sprinklers in accordance with 19.3.5.8. Where standard-standard-response sprinklers are used in accordance with 19.3.5.7, the suite must be protected by total (complete) automatic smoke detection [in accordance with 19.2.5.7.2.3(B)(1)] as depicted in Figure A.19.2.5.7.2.1(B)-3(3)(b).

For patient sleeping suites having an area greater than 7500 ft$^2$ (700 m$^2$), the suite must be protected by quick-quick-response sprinklers in accordance with 19.3.5.8, direct supervision of all sleeping rooms must be provided by staff, and total (complete) coverage automatic smoke detection must be provided throughout the sleeping suite [in accordance with 19.2.5.7.2.3(C)] as depicted in Figure A.19.2.5.7.2.1(B)-4(3)(c).
All Sleeping Rooms provided either with Direct Supervision by Staff or Smoke Detection.

Figure A.19.2.5.7.2.1(B)-1(2).
Figure A.19.2.5.7.2.1(B)-2(3)(a). Supervision provided by total complete smoke detection throughout the sleeping suite.
Figure A.19.2.5.7.2.1(B)-3(3)(b). For Suites >5000 ft² (>460 m²) and ≤7500 ft² (≤700 m²) protected by Standard Response Sprinklers, Total (Complete) Smoke Detection Required Throughout the Sleeping Suite.
Figure A.19.2.5.7.2.1(B)-4(3)(c). For Suites >7500 ft² (>700 m²), all Sleeping Rooms must be provided with direct supervision by staff and total (complete) smoke detection installed throughout the Sleeping Suite.

**A.19.2.5.7.2.1(D)(B)(1)** The interior partitions or walls might extend full height to the ceiling, provided that they do not obscure visual supervision of the suite. Where they do obscure visual supervision, see 19.2.5.7.2.1(D)(B)(2).

**A.19.2.5.7.2.2(B)(A)** Where only one means of egress is required from the suite, it needs to be provided by a door opening directly to a corridor complying with 19.3.6 or to a horizontal exit.

**A.19.2.5.7.2.2(C)** Where the second exit access for a sleeping suite is through an adjacent suite, it is the intent that the 100 ft (30 m) travel distance limitation in the suite be applied only to the suite under consideration.

**A.19.2.5.7.2.3(C)(1)** The alternative of 19.2.5.7.2.1(D)(1)(b) is not to be applied, since 19.2.5.7.2.3(C)(2) requires total coverage automatic smoke detection for the suite that exceeds 5000 ft² (460 m²) but does not exceed 7500 ft² (700 m²).
A.19.2.5.7.3.2(B) Where only one means of egress is required from the suite, it needs to be provided by a door opening directly to a corridor complying with 19.3.6.

A.19.2.5.7.3.2(C) A.19.2.5.7.3.1(C) Where the second exit access for a non-sleeping non-sleeping suite is through an adjacent suite, it is the intent that the adjacent suite not be considered an intervening room.

A.19.3.2.1.2 Penetrations of hazardous area walls located above ceilings that comply with Section 8.4 are not required to be sealed to comply with 19.3.2.1.2.

A.19.3.2.2 The hazard level of a laboratory is considered severe if quantities of flammable, combustible, or hazardous materials are present that are capable of sustaining a fire of sufficient magnitude to breach a 1-hour fire separation. See NFPA Fire Protection Handbook for guidance.

A.19.3.2.5.2 This provision is intended to permit small appliances used for reheating, such as microwave ovens, hot plates, toasters, and nourishment centers, to be exempt from the requirements for commercial cooking equipment and hazardous area protection.

A.19.3.2.5.3 The intent of 19.3.2.5.3 is to limit the number of persons for whom meals are routinely prepared to not more than 30. Staff and feeding assistants are not included in this number.

A.19.3.2.5.3(3) The minimum airflow of 500 cfm (14,000 L/m) is intended to require the use of residential hood equipment at the higher end of equipment capacities. It is also intended to draw a sufficient amount of the cooking vapors into the grease baffle and filter system to reduce migration beyond the hood.

A.19.3.2.5.3(6) The intent of this provision is to limit cooking fuel to gas or electricity. The prohibition of solid fuels for cooking is not intended to prohibit charcoal grilling on grills located outside the facility.

A.19.3.2.5.3(7) Deep-fat frying is defined as a cooking method that involves fully immersing food in hot oil.

A.19.3.2.5.3(9) The intent of this requirement is that the fuel source for the cooktop or range is to be turned on only when staff is present or aware that the kitchen is being used. The timer function is meant to provide an additional safeguard if the staff forgets to deactivate the cooktop or range. If a cooking activity lasts longer than 120 minutes, the timer would be required to be manually reset.

A.19.3.2.5.3(11) Protection of the cooktop or range is accomplished by the sprinklers that are required in the space and the required cooktop hood fire suppression system. The smoke alarms are intended to notify staff who might not be in the immediate area. The intent of requiring smoke alarms, instead of smoke detectors is to prevent false alarms from initiating the building fire alarm system and notifying the fire department. Smoke alarms should be maintained a minimum of 20 ft (6.1 m) away from the cooktop or range as studies have shown this distance to be the threshold for significantly reducing false nuisance alarms caused by cooking. The intent of the interconnected smoke alarms, with silence feature, is that while the devices would alert staff members to a potential problem, if it is a false nuisance alarm, the staff members can use the silence feature instead of disabling the alarm. The referenced study indicates that nuisance alarms are reduced with photoelectric smoke alarms. Providing two interconnected alarms provides a safety factor since they are not electrically supervised by the the fire alarm system. (Smoke Alarms – Pilot Study of Nuisance Alarms Associated with Cooking)
A.19.3.2.5.3(12) The provision of 19.3.2.5.3(12) recognizes that it is more important to maintain the 20-ft (6.1-m) minimum spacing criterion between the smoke alarm and the cooktop or range, to minimize nuisance alarms, than to assure that the smoke alarm is located within the kitchen area itself.

A.19.3.2.5.3(13) The requirements of 19.3.2.5.3(13) are intended to allow the local staff to silence and reset the system smoke detector without the assistance of the engineering or maintenance personnel. This provision is not intended to require the system smoke detector to initiate a building-wide occupant alarm signal or to notify the emergency forces.

A.19.3.2.5.4 The provisions of 19.3.2.5.4 differ from those of 19.3.2.5.3, as they apply to cooking equipment that is separated from the corridor.

A.19.3.2.5.5 The provision of 19.3.2.5.5 clarifies that protected commercial cooking equipment does not require an enclosure (separation) as a hazardous area in accordance with Section 8.7, as is required by 19.3.2.1.

A.19.3.2.6 Extensive research, including fire modeling, has indicated that alcohol-based hand-rub solutions can be safely installed in corridors of health care facilities, provided that certain other precautions are taken. The total quantities of flammable liquids in any area should comply with the provisions of other recognized codes, including NFPA 1, Fire Code, and NFPA 30, Flammable and Combustible Liquids Code. In addition, special consideration should be given to the following:

1. Obstructions created by the installation of hand-rub solution dispensers
2. Location of dispensers with regard to adjacent combustible materials and potential sources of ignition, especially where dispensers are mounted on walls of combustible construction
3. Requirements for other fire protection features, including complete automatic sprinkler protection, to be installed throughout the compartment
4. Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser

A.19.3.3.2 The reduction in class of interior finish prescribed by 10.2.8.1 is permitted to be used.

A.19.3.4.2 It is not the intent of this Code to require single-station smoke detectors alarms, which might be required by local codes, to be connected to or to initiate the building fire alarm system.

A.19.3.4.3.1(1) It is the intent of this provision to permit a visible fire alarm signal instead of an audible signal to reduce interference between the fire alarm and medical equipment monitoring alarms.

A.19.3.5.4 It is not the intent to require existing standard sprinklers in existing sprinkler systems to be replaced with listed quick-response or listed residential sprinklers. It is the intent that new sprinkler systems installed in existing buildings comply with the requirements of Chapter 18, including 18.3.5.6.

A.19.3.5.7 It is intended that any valve that controls automatic sprinklers in the building or portions of the building, including sectional and floor control valves, be electrically supervised. Valves that control isolated sprinkler heads, such as in laundry and trash chutes, are not required to be electrically supervised. Appropriate means should be provided to ensure that valves that are not electrically supervised remain open.

A.19.3.5.8 The provisions of 19.3.5.8(6) and (7) are not intended to supplant NFPA 13, Standard for the Installation of Sprinkler Systems, which requires that residential sprinklers with more than a 10°F (5.6°C) difference in temperature rating not be mixed within a room. Currently there are no additional prohibitions in NFPA 13 on the mixing of sprinklers having different thermal response characteristics.
Conversely, there are no design parameters to make practical the mixing of residential and other types of sprinklers.

Residential sprinklers are considered acceptable in patient sleeping rooms of all health care facilities, even though not specifically listed for this purpose in all cases.

A.19.3.5.8(6) It is not the intent of the Code to permit standard-response sprinklers to meet the criteria of 19.3.5.8 just because the sprinklers were installed before quick-response sprinklers were invented or listed. The intent of 19.3.5.8(6) is to permit older quick-response systems to be credited, even though there might be some standard-response sprinklers in existence due to the fact that quick-response sprinklers were unavailable for those specific locations at the time. For example, in the early days of quick-response sprinklers, there were no high-temperature quick-response sprinklers available.

A.19.3.5.10 Although this exception is currently not recognized by NFPA 13, Standard for the Installation of Sprinkler Systems, a proposal for such exemption has been submitted for consideration by the Technical Committee on Sprinkler System Installation Criteria. This exception is limited to hospitals, as nursing homes and many limited care facilities might have more combustibles within the closets. The limited amount of clothing found in the small clothes closets in hospital patient rooms is typically far less than the amount of combustibles in casework cabinets that do not require sprinkler protection, such as nurse servers. In many hospitals, especially new hospitals, it is difficult to make a distinction between clothes closets and cabinet work. The exception is far more restrictive than similar exceptions for hotels and apartment buildings. NFPA 13, Standard for the Installation of Sprinkler Systems, already permits the omission of sprinklers in wardrobes [see 8.1.1(7) of NFPA 13]. It is not the intent of 19.3.5.10 to affect the wardrobe provisions of NFPA 13. It is the intent that the sprinkler protection in the room covers the closet as if there were no door on the closet. (See 8.5.3.2.3 of NFPA 13.)

A.19.3.5.11 For the proper operation of sprinkler systems, cubicle curtains and sprinkler locations need to be coordinated. Improperly designed systems might obstruct the sprinkler spray from reaching the fire or might shield the heat from the sprinkler. Many options are available to the designer including, but not limited to, hanging the cubicle curtains 18 in. (455 mm) below the sprinkler deflector; using ½ in. (13 mm) diagonal mesh or a 70 percent open weave top panel that extends 18 in. (455 mm) below the sprinkler deflector; or designing the system to have a horizontal and minimum vertical distance that meets the requirements of NFPA 13, Standard for the Installation of Sprinkler Systems. The test data that forms the basis of the NFPA 13 requirements is from fire tests with sprinkler discharge that penetrated a single privacy curtain.

A.19.3.6.1(1)(a) The presence of stored combustible materials in a room or space open to the corridor does not necessarily result in the room or space being classified as a hazardous area. In some circumstances, the amount and type of combustibles might result in the room or space being classified as a hazardous area by the authority having jurisdiction.

A.19.3.6.1(3) A typical nurses’ station would normally contain one or more of the following with associated furniture and furnishings:

1. Charting area
2. Clerical area
3. Nourishment station
4. Storage of small amounts of medications, medical equipment and supplies, clerical supplies, and linens
5. Patient monitoring and communication equipment
A.19.3.6.1(7)(b) A fully developed fire (flashover) occurs if the rate of heat release of the burning materials exceeds the capability of the space to absorb or vent that heat. The ability of common lining (wall, ceiling, and floor) materials to absorb heat is approximately 0.75 Btu/ft$^2$ (0.07 kJ/m$^2$) of lining. The venting capability of open doors or windows is in excess of 20 Btu/ft$^2$ (1.95 kJ/m$^2$) of opening. In a fire that has not reached flashover conditions, fire will spread from one furniture item to another only if the burning item is close to another furniture item. For example, if individual furniture items have a heat release rate of 500 Btu/s (525 kW) and are separated by 12 in. (305 mm) or more, the fire is not expected to spread from item to item, and flashover is unlikely to occur. (See also the NFPA Fire Protection Handbook.)

A.19.3.6.1(8) This provision permits waiting areas to be located across the corridor from each other, provided that neither area exceeds the 600 ft$^2$ (55.7 m$^2$) limitation.

A.19.3.6.2.2 The intent of the minimum ½-hour fire resistance rating for corridor partitions is to require a nominal fire rating, particularly where the fire rating of existing partitions cannot be documented. Examples of acceptable partition assemblies would include, but are not limited to, ½ in. (13 mm) gypsum board, wood lath and plaster, gypsum lath, or metal lath and plaster.

A.19.3.6.2.3 The purpose of extending a corridor wall above a lay-in ceiling or through a concealed space is to provide a barrier to limit the passage of smoke. Such a barrier is not required to be either a smoke barrier or a smoke partition — two terms for which specific Code definitions and requirements apply. The intent of 19.3.6.2.3 is not to require light-tight barriers above lay-in ceilings or to require an absolute seal of the room from the corridor. Small holes, penetrations, or gaps around items such as ductwork, conduit, or telecommunication lines should not affect the ability of this barrier to limit the passage of smoke.

A.19.3.6.2.4 An architectural, exposed, suspended-grid acoustical tile ceiling with penetrating items, such as sprinkler piping and sprinklers; ducted HVAC supply and return-air diffusers; speakers; and recessed lighting fixtures, is capable of limiting the transfer of smoke.

A.19.3.6.2.6 Monolithic ceilings are continuous horizontal membranes composed of noncombustible or limited-combustible materials, such as plaster or gypsum board, with seams or cracks permanently sealed.

A.19.3.6.3 Where a nurse server penetrates a corridor wall, the access opening on the corridor side of the nurse server must be protected as is done for a corridor door. The provision of 19.3.6.3 requires the door leaves to be of substantial construction that is sufficient to resist fire for 20 minutes. These doors, described as 1-3/4 in. (44 mm) thick, solid-bonded core wood-core doors, are nonrated doors and are not subject to the requirements of NFPA 80, Standard for Fire Doors and Other Opening Protectives.

A.19.3.6.3.1 Gasketing of doors should not be necessary to achieve resistance to the passage of smoke if the door is relatively tight-fitting.

A.19.3.6.3.5 While it is recognized that closed doors serve to maintain tenable conditions in a corridor and adjacent patient rooms, such doors, which, under normal or fire conditions, are self-closing, might create a special hazard for the personal safety of a room occupant. Such closed doors might present a problem of delay in discovery, confining fire products beyond tenable conditions. Because it is critical for responding staff members to be able to immediately identify the specific room involved, it is recommended that approved automatic smoke detection that is interconnected with the building fire alarm be considered for rooms having doors equipped with closing devices. Such detection is permitted to be located at any approved point within the room. When activated, the detector is required to provide a warning that indicates the specific room of involvement by activation
of a fire alarm annunciator, nurse call system, or any other device acceptable to the authority having jurisdiction.

In existing buildings, use of the following options reasonably ensures that patient room doors will be closed and remain closed during a fire:

1. Doors should have positive latches, and a suitable program that trains staff to close the doors in an emergency should be established.
2. It is the intent of the Code that no new installations of roller latches be permitted; however, repair or replacement of roller latches is not considered a new installation.
3. Doors protecting openings to patient sleeping or treatment rooms, or spaces having a similar combustible loading, might be held closed using a closer exerting a closing force of not less than 5 lbf (22 N) on the door latch stile.

A.19.3.6.3.10 Doors should not be blocked open by furniture, door stops, chocks, tie-backs, drop-down or plunger-type devices, or other devices that necessitate manual unlatching or releasing action to close. Examples of hold-open devices that release when the door is pushed or pulled are friction catches or magnetic catches.

A.19.3.6.3.12 It is not the intent of 19.3.6.3.12 to prohibit the application of push plates, hardware, or other attachments on corridor doors in health care occupancies.

A.19.3.6.5.1 It is not the intent of 19.3.6.5.1 to permit mail slots or pass-through openings in doors or walls of rooms designated as a hazardous area.

A.19.3.7.3(2) Where the smoke control system design requires dampers in order that the system functions effectively, it is not the intent of the exception to permit the damper to be omitted.

This provision is not intended to prevent the use of plenum returns where ducting is used to return air from a ceiling plenum through smoke barrier walls. Short stubs or jumper ducts are not acceptable. Ducting is required to connect at both sides of the opening and to extend into adjacent spaces away from the wall. The intent is to prohibit open-air transfers at or near the smoke barrier walls.

A.19.3.7.6.1 It is not the intent of 19.3.7.6.1 to prohibit the application of push plates, hardware, or other attachments on smoke barrier doors in health care occupancies.

A.19.3.7.8 Smoke barriers might include walls having door openings other than cross-corridor doors. There is no restriction in the Code regarding which doors or how many doors form part of a smoke barrier. For example, doors from the corridor to individual rooms are permitted to form part of a smoke barrier.

A.19.4.2.2 The provision of 19.4.2.2 is intended to prevent the phase-in period for the installation of sprinklers from being reset to 12 years upon adoption of the 2012 edition of the Code in jurisdictions where the 12-year period had already begun via the adoption of the 2009 edition.

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A.19.4.3 Extensive research, including fire modeling, has indicated that alcohol-based hand-rub solutions can be safely installed in corridors of health care facilities, provided that certain other precautions are taken. The total quantities of flammable liquids in any area should comply with the provisions of other recognized codes, including NFPA 1, Fire Code, and NFPA 30, Flammable and Combustible Liquids Code. In addition, special consideration should be given to the following:

1. Obstructions created by the installation of hand-rub solution dispensers
2. Location of dispensers with regard to adjacent combustible materials and potential sources of ignition, especially where dispensers are mounted on walls of combustible construction
3. Requirements for other fire protection features, including complete automatic sprinkler protection, to be installed throughout the compartment
4. Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser

A.19.5.2.2  For both new and existing buildings, it is the intent to permit the installation and use of fireplace stoves and room heaters using solid fuel as defined in NFPA 211, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances, provided that all such devices are installed, maintained, and used in accordance with the appropriate provisions of that standard and all manufacturers' specifications. These requirements are not intended to permit freestanding solid fuel-burning appliances such as freestanding wood-burning stoves.

A.19.5.2.3(2)(d)  The glass front of a direct-vent fireplace can become extremely hot. Barriers such as screens or mesh installed over the direct-vent glass help reduce the risk of burn from touching the glass.

A.19.5.2.3(2)(e)  The intent of locating controls in a restricted location is to ensure staff is aware of use of the fireplace and to prevent unauthorized use. Examples of locked controls are a keyed switch or locating the switch in a staff-controlled location such as a staff station.

A.19.7  Health care occupants have, in large part, varied degrees of physical disability, and their removal to the outside, or even their disturbance caused by moving, is inexpedient or impractical in many cases, except as a last resort. Similarly, recognizing that there might be an operating necessity for the restraint of the mentally ill, often by use of barred windows and locked doors, fire exit drills are usually extremely disturbing, detrimental, and frequently impracticable.

In most cases, fire exit drills, as ordinarily practiced in other occupancies, cannot be conducted in health care occupancies. Fundamentally, superior construction, early discovery and extinguishment of incipient fires, and prompt notification need to be relied on to reduce the occasion for evacuation of buildings of this class to a minimum.

A.19.7.1.4  Many health care occupancies conduct fire drills without disturbing patients by choosing the location of the simulated emergency in advance and by closing the doors to patients' rooms or wards in the vicinity prior to initiation of the drill. The purpose of a fire drill is to test and evaluate the efficiency, knowledge, and response of institutional personnel in implementing the facility fire emergency plan emergency action plan. Its purpose is not to disturb or excite patients. Fire drills should be scheduled on a random basis to ensure that personnel in health care facilities are drilled not less than once in each 3-month period.

Drills should consider the ability to move patients to an adjacent smoke compartment. Relocation can be practiced using simulated patients or empty wheelchairs.

A.19.7.2.1  Each facility has specific characteristics that vary sufficiently from other facilities to prevent the specification of a universal emergency procedure. The recommendations that follow, however, contain many of the elements that should be considered and adapted, as appropriate, to the individual facility.

Upon discovery of fire, personnel should immediately take the following action:

1. If any person is involved in the fire, the discoverer should go to the aid of that person, calling aloud an established code phrase, which provides for both the immediate aid of any endangered person and the transmission of an alarm.

2. Any person in the area, upon hearing the code called aloud, should activate the building fire alarm using the nearest manual fire alarm box.

3. If a person is not involved in the fire, the discoverer should activate the building fire alarm using the nearest manual fire alarm box.

4. Personnel, upon hearing the alarm signal, should immediately execute their duties as outlined in the facility fire safety plan.

5. The telephone operator should determine the location of the fire as indicated by the audible signal.

6. In a building equipped with an uncoded alarm system, a person on the floor of fire origin should be responsible for promptly notifying the facility telephone operator of the fire location.
(7) If the telephone operator receives a telephone alarm reporting a fire from a floor, the operator should regard that alarm in the same fashion as an alarm received over the fire alarm system and should immediately notify the fire department and alert all facility personnel of the place of fire and its origin.

(8) If the building fire alarm system is out of order, any person discovering a fire should immediately notify the telephone operator by telephone, and the operator should then transmit this information to the fire department and alert the building occupants.

A.19.7.3.3 The purpose of this requirement is to provide a means for building designers, occupants, and operators to clearly designate approved egress corridors that can be identified even though physical or other obvious barriers might not be present to indicate their location. Floor plans used to satisfy this requirement might incorporate more than one function and more than one smoke compartment of the building, provided egress corridors are clearly identified where no fixed barriers are present. Such plans should be accessible to the authority having jurisdiction but should not be required to be posted.

A.19.7.4 The most rigid discipline with regard to prohibition of smoking might not be nearly as effective in reducing incipient fires from surreptitious smoking as the open recognition of smoking, with provision of suitable facilities for smoking. Proper education and training of the staff and attendants in the ordinary fire hazards and their abatement is unquestionably essential. The problem is a broad one, varying with different types and arrangements of buildings; the effectiveness of rules of procedure, which need to be flexible, depends in large part on the management.

A.19.7.5.1 In addition to the provisions of 10.3.1, which deal with ignition resistance, additional requirements with respect to the location of cubicle curtains relative to sprinkler placement are included in NFPA 13, *Standard for the Installation of Sprinkler Systems*.

A.19.7.5.6(2) The user should verify that the products meet the referenced test methods of NFPA 701, *Standard Methods of Fire Tests for Home Propagation of Textiles and Films*, and not the small-scale test procedure that was previously eliminated from NFPA 701.

A.19.7.5.6(4) The percentage of decorations should be measured against the area of any wall or ceiling, not the aggregate total of walls, ceilings, and doors. The door is considered part of the wall. The decorations must be located such that they do not interfere with the operation of any door, sprinkler, smoke detector, or any other life safety equipment. Other art might include hanging objects or three-dimensional items.

A.19.7.5.6(5) When determining if the hazard for fire development or spread is present, consideration should be given to whether the building or area being evaluated is sprinklered.

A.19.7.5.7.1(3) It is not the intent to permit collection receptacles with a capacity greater than 32 gal (121 L) to be positioned at or near a nurses' station based on the argument that such nurses' station is constantly attended. The large collection receptacle itself needs to be actively attended by staff. Staff might leave the large receptacle in the corridor outside a patient room while entering the room to collect soiled linen or trash, but staff is expected to return to the receptacle, move on to the next room, and repeat the collection function. Where staff is not actively collecting material for placement in the receptacle, the receptacle is to be moved to a room protected as a hazardous area.

A.19.7.5.7.2 It is the intent that this provision permits recycling of bottles, cans, paper, and similar clean items that do not contain grease, oil, flammable liquids, or significant plastic materials, using larger containers or several adjacent containers, and not require locating such containers in a room protected as a hazardous area. Containers for medical records awaiting shredding are often larger...
than 32 gal (121 L). These containers are not to be included in the calculations and limitations of 19.7.5.7.1. There is no limit on the number of these containers, as FM Approval Standard 6921, Containers for Combustible Waste, ensures that the fire will not spread outside of the container. FM approval standards are written for use with FM Approvals. The tests can be conducted by any approved laboratory. The portions of the standard referring to FM Approvals are not included in this reference.

A.19.7.5.7.2(2) See 19.7.5.7.1(3).

A.19.7.7 A document that provides recognized engineering principles for the testing of smoke control systems is NFPA 92, Standard for Smoke Control Systems.

A.19.7.8 Portable space heaters complying with 19.7.8 should be permitted to be located in office areas, nurses stations, and other similar non-patient nonpatient spaces within the same smoke compartment as patient sleeping rooms.

A.20.1.1.1.6 A.20.1.1.1.8 The Code recognizes that certain functions necessary for the life safety of building occupants, such as the closing of corridor doors, the operation of manual fire alarm devices, and the removal of patients from the room of fire origin, require the intervention of facility staff. It is not the intent of 20.1.1.1.6 20.1.1.1.8 to specify the levels or locations of staff necessary to meet this requirement.

A.20.1.1.2 This objective is accomplished in the context of the physical facilities, the type of activities undertaken, the provisions for the capabilities of staff, and the needs of all occupants through requirements directed at the following:

(1) Prevention of ignition
(2) Detection of fire
(3) Control of fire development
(4) Confinement of the effects of fire
(5) Extinguishment of fire
(6) Provision of refuge or evacuation facilities, or both
(7) Staff reaction

A.20.1.3.2 Doctors’ offices and treatment and diagnostic facilities that are intended solely for outpatient care and are physically separated from facilities for the treatment or care of inpatients, but are otherwise associated with the management of an institution, might be classified as business occupancies rather than health care occupancies.

A.20.2.2.2.4 The words “principal entrance/exit doors” describe doors that the authority having jurisdiction can reasonably expect to be unlocked in order for the facility to do business.

A.20.3.2.1 It is not the intent of this provision that rooms inside individual tenant spaces that are used to store routine office supplies for that tenant be required to be either separated or sprinklered.

A.20.3.2.3 The requirement for separating high high-hazard contents areas from other parts of the building is intended to isolate the hazard, and 8.2.3.3 is applicable.

A.20.3.2.6 Extensive research, including fire modeling, has indicated that alcohol-based hand rub solutions can be safely installed in corridors of health care facilities, provided that certain other precautions are taken. The total quantities of flammable liquids in any area should comply with the provisions of other recognized codes, including NFPA 1, Fire Code, and NFPA 30, Flammable and Combustible Liquids Code. In addition, special consideration should be given to the following:

(1) Obstructions created by the installation of hand rub solution dispensers
(2) Location of dispensers with regard to adjacent combustible materials and potential sources of ignition, especially where dispensers are mounted on walls of combustible construction.

(3) Requirements for other fire protection features, including complete automatic sprinkler protection, to be installed throughout the compartment.

(4) Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser.

A20.3.6.1 The intent of 38.3.6(1) through (3) is to permit spaces to be open to the exit access corridor without separation.

A20.3.6.1(1) Where exits are available from an open floor area, such as open plan buildings, corridors are not required to be separated. An example of an open plan building is a building in which the work spaces and accesses to exits are delineated by the use of tables, desks, bookcases, or counters, or by partitions that are less than floor-to-ceiling height.

A20.3.6.1(2) It is the intent of this provision that a single tenant be limited to an area occupied under a single management and work the same hours. The concept is that people under the same employ working the same hours would likely be familiar with their entire tenant space. It is not the intent to apply this provision simply because tenants are owned by the same organization. For example, in a government-owned office building, the offices of different federal agencies would be considered multiple tenants, because an employee normally works for one agency. The agencies might work various hours. Another example of multiple tenancy would be a classroom building of a university, because some classrooms might be in use at times when other classrooms are not being used.

A20.3.7.9 Smoke barriers might include walls having door openings other than cross-corridor doors. There is no restriction in the Code regarding which doors or how many doors form part of a smoke barrier. For example, doors from the corridor to individual rooms are permitted to form part of a smoke barrier.

A20.3.7.13–14 Split astragals (i.e., astragals installed on both door leaves) are also considered astragals.

A20.4.3 Extensive research, including fire modeling, has indicated that alcohol-based hand-rub solutions can be safely installed in corridors of health care facilities, provided that certain other precautions are taken. The total quantities of flammable liquids in any area should comply with the provisions of other recognized codes, including NFPA 1, Fire Code, and NFPA 30, Flammable and Combustible Liquids Code. In addition, special consideration should be given to the following:

(1) Obstructions created by the installation of hand-rub solution dispensers.

(2) Location of dispensers with regard to adjacent combustible materials and potential sources of ignition, especially where dispensers are mounted on walls of combustible construction.

(3) Requirements for other fire protection features, including complete automatic sprinkler protection, to be installed throughout the compartment.

(4) Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser.

A20.7 Health care occupants have, in large part, varied degrees of physical disability, and their removal to the outside, or even their disturbance caused by moving, is inexpedient or impractical in many cases, except as a last resort. Similarly, recognizing that there might be an operating necessity for the restraint of the mentally ill, often by use of barred windows and locked doors, fire exit drills are usually extremely disturbing, detrimental, and frequently impracticable.

In most cases, fire exit drills, as ordinarily practiced in other occupancies, cannot be conducted in health care occupancies. Fundamentally, superior construction, early discovery and extinguishment of incipient fires, and prompt notification need to be relied on to reduce the occasion for evacuation of buildings of this class to a minimum.
A.20.7.1.4 Many health care occupancies conduct fire drills without disturbing patients by choosing the location of the simulated emergency in advance and by closing the doors to patients’ rooms or wards in the vicinity prior to the initiation of the drill. The purpose of a fire drill is to test and evaluate the efficiency, knowledge, and response of institutional personnel in implementing the facility fire emergency plan. Its purpose is not to disturb or excite patients. Fire drills should be scheduled on a random basis to ensure that personnel in health care facilities are drilled not less than once in each 3-month period.

Drills should consider the ability to move patients to an adjacent smoke compartment. Relocation can be practiced using simulated patients or empty wheelchairs.

A.20.7.2.1 Each facility has specific characteristics that vary sufficiently from other facilities to prevent the specification of a universal emergency procedure. The recommendations that follow, however, contain many of the elements that should be considered and adapted, as appropriate, to the individual facility.

Upon discovery of fire, personnel should immediately take the following action:

(1) If any person is involved in the fire, the discoverer should go to the aid of that person, calling aloud an established code phrase, which provides for both the immediate aid of any endangered person and the transmission of an alarm.

(2) Any person in the area, upon hearing the code called aloud, should activate the building fire alarm using the nearest manual fire alarm box.

(3) If a person is not involved in the fire, the discoverer should activate the building fire alarm using the nearest manual fire alarm box.

(4) Personnel, upon hearing the alarm signal, should immediately execute their duties as outlined in the facility fire safety plan.

(5) The telephone operator should determine the location of the fire as indicated by the audible signal.

(6) In a building equipped with an uncoded alarm system, a person on the floor of fire origin should be responsible for promptly notifying the facility telephone operator of the fire location.

(7) If the telephone operator receives a telephone alarm reporting a fire from a floor, the operator should regard that alarm in the same fashion as an alarm received over the fire alarm system and should immediately notify the fire department and alert all facility personnel of the place of fire and its origin.

(8) If the building fire alarm system is out of order, any person discovering a fire should immediately notify the telephone operator by telephone, and the operator should then transmit this information to the fire department and alert the building occupants.

A.20.7.4 The most rigid discipline with regard to prohibition of smoking might not be nearly as effective in reducing incipient fires from surreptitious smoking as the open recognition of smoking, with provision of suitable facilities for smoking. Proper education and training of the staff and attendants in the ordinary fire hazards and their abatement is unquestionably essential. The problem is a broad one, varying with different types and arrangements of buildings; the effectiveness of rules of procedure, which need to be flexible, depends in large part on the management.

A.20.7.5.1 In addition to the provisions of 10.3.1, which deal with ignition resistance, additional requirements with respect to the location of cubicle curtains relative to sprinkler placement are included in NFPA 13, Standard for the Installation of Sprinkler Systems.

A.20.7.5.4(4) The percentage of decorations should be measured against the area of any wall or ceiling, not the aggregate total of walls, ceilings, and doors. The door is considered part of the wall. The decorations must be located such that they do not interfere with the operation of any door, sprinkler, smoke detector, or any other life safety equipment. Other art might include hanging objects or three-dimensional items.
A.20.7.5.5.2 It is the intent that this provision permits recycling of bottles, cans, paper, and similar clean items that do not contain grease, oil, flammable liquids, or significant plastic materials using larger containers or several adjacent containers and not require locating such containers in a room protected as a hazardous area. Containers for medical records awaiting shredding are often larger than 32 gal (121 L). These containers are not to be included in the calculations and limitations of 20.7.5.5.1. There is no limit on the number of these containers, as FM Approval Standard 6921, Containers for Combustible Waste, ensures that the fire will not spread outside of the container. FM approval standards are written for use with FM Approvals. The tests can be conducted by any approved laboratory. The portions of the standard referring to FM Approvals are not included in this reference.

A.20.7.5.5.2(2) See 20.7.5.5.1(3).

A.20.7.7 A document that provides recognized engineering principles for the testing of smoke control systems is NFPA 92, Standard for Smoke Control Systems.

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A.21.1.1.1.6 A.21.1.1.1.8 The Code recognizes that certain functions necessary for the life safety of building occupants, such as the closing of corridor doors, the operation of manual fire alarm devices, and the removal of patients from the room of fire origin, require the intervention of facility staff. It is not the intent of 21.1.1.1.6 21.1.1.1.8 to specify the levels or locations of staff necessary to meet this requirement.

A.21.1.1.2 This objective is accomplished in the context of the physical facilities, the type of activities undertaken, the provisions for the capabilities of staff, and the needs of all occupants through requirements directed at the following:

1. Prevention of ignition
2. Detection of fire
3. Control of fire development
4. Confinement of the effects of fire
5. Extinguishment of fire
6. Provision of refuge or evacuation facilities, or both
7. Staff reaction

A.21.1.3.2–3 Doctors’ offices and treatment and diagnostic facilities that are intended solely for outpatient care and are physically separated from facilities for the treatment or care of inpatients, but that are otherwise associated with the management of an institution, might be classified as business occupancies rather than health care occupancies.

A.21.2.2.2.4 The words “principal entrance/exit doors” describe doors that the authority having jurisdiction can reasonably expect to be unlocked in order for the facility to do business.

A.21.2.2.2.12 A.21.2.2.6 The waiver of the requirement for doors to swing in the direction of egress travel is based on the assumption that, in this occupancy, there is little possibility of a panic rush that might prevent the opening of doors that swing against egress travel.

A desirable arrangement, which is possible with corridors 6 ft (1830 mm) or more in width, is to have two 32 in. (810 mm) doors, normally closed, each swinging with the egress travel (in opposite directions).

A.21.3.2.1 It is not the intent of this provision that rooms inside individual tenant spaces that are used to store routine office supplies for that tenant be required to be either separated or sprinklered.

A.21.3.2.3 The requirement for separating high-hazard contents areas from other parts of the building is intended to isolate the hazard, and 8.2.3.3 is applicable.
A.21.3.2.6 Extensive research, including fire modeling, has indicated that alcohol-based hand-rub solutions can be safely installed in corridors of health care facilities, provided that certain other precautions are taken. The total quantities of flammable liquids in any area should comply with the provisions of other recognized codes, including NFPA 1, Fire Code, and NFPA 30, Flammable and Combustible Liquids Code. In addition, special consideration should be given to the following:

1. Obstructions created by the installation of hand-rub solution dispensers
2. Location of dispensers with regard to adjacent combustible materials and potential sources of ignition, especially where dispensers are mounted on walls of combustible construction
3. Requirements for other fire protection features, including complete automatic sprinkler protection, to be installed throughout the compartment
4. Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser

A.21.3.7.9–10 Smoke barriers might include walls having door openings other than cross-corridor doors. There is no restriction in the Code regarding which doors or how many doors form part of a smoke barrier. For example, doors from the corridor to individual rooms are permitted to form part of a smoke barrier.

A.21.4.2.2 In some cases, appreciable cost might be involved in bringing an existing occupancy into compliance. Where this is true, it would be appropriate for the authority having jurisdiction to prescribe a schedule determined jointly with the facility, allowing suitable periods of time for the correction of the various deficiencies and giving due weight to the ability of the owner to secure the necessary funds.

A.21.4.3 Extensive research, including fire modeling, has indicated that alcohol-based hand-rub solutions can be safely installed in corridors of health care facilities, provided that certain other precautions are taken. The total quantities of flammable liquids in any area should comply with the provisions of other recognized codes, including NFPA 1, Fire Code, and NFPA 30, Flammable and Combustible Liquids Code. In addition, special consideration should be given to the following:

1. Obstructions created by the installation of hand-rub solution dispensers
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4. Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser

A.21.7 Health care occupants have, in large part, varied degrees of physical disability, and their removal to the outside, or even their disturbance caused by moving, is inexpedient or impractical in many cases, except as a last resort. Similarly, recognizing that there might be an operating necessity for the restraint of the mentally ill, often by use of barred windows and locked doors, fire exit drills are usually extremely disturbing, detrimental, and frequently impracticable.

In most cases, fire exit drills, as ordinarily practiced in other occupancies, cannot be conducted in health care occupancies. Fundamentally, superior construction, early discovery and extinguishment of incipient fires, and prompt notification need to be relied on to reduce the occasion for evacuation of buildings of this class to a minimum.

A.21.7.1.4 Many health care occupancies conduct fire drills without disturbing patients by choosing the location of the simulated emergency in advance and by closing the doors to patients’ rooms or wards in the vicinity prior to initiation of the drill. The purpose of a fire drill is to test and evaluate the efficiency, knowledge, and response of institutional personnel in implementing the facility fire emergency plan. Its purpose is not to disturb or excite patients. Fire drills should be scheduled on a
random basis to ensure that personnel in health care facilities are drilled not less than once in each 3-month period.

Drills should consider the ability to move patients to an adjacent smoke compartment. Relocation can be practiced using simulated patients or empty wheelchairs.

A.21.7.2.1 Each facility has specific characteristics that vary sufficiently from other facilities to prevent the specification of a universal emergency procedure. The recommendations that follow, however, contain many of the elements that should be considered and adapted, as appropriate, to the individual facility.

Upon discovery of fire, personnel should immediately take the following action:

1. If any person is involved in the fire, the discoverer should go to the aid of that person, calling aloud an established code phrase, which provides for both the immediate aid of any endangered person and the transmission of an alarm.

2. Any person in the area, upon hearing the code called aloud, should activate the building fire alarm using the nearest manual fire alarm box.

3. If a person is not involved in the fire, the discoverer should activate the building fire alarm using the nearest manual fire alarm box.

4. Personnel, upon hearing the alarm signal, should immediately execute their duties as outlined in the facility fire safety plan.

5. The telephone operator should determine the location of the fire as indicated by the audible signal.

6. In a building equipped with an uncoded alarm system, a person on the floor of fire origin should be responsible for promptly notifying the facility telephone operator of the fire location.

7. If the telephone operator receives a telephone alarm reporting a fire from a floor, the operator should regard that alarm in the same fashion as an alarm received over the fire alarm system and should immediately notify the fire department and alert all facility personnel of the place of fire and its origin.

8. If the building fire alarm system is out of order, any person discovering a fire should immediately notify the telephone operator by telephone, and the operator should then transmit this information to the fire department and alert the building occupants.

A.21.7.4 The most rigid discipline with regard to prohibition of smoking might not be nearly as effective in reducing incipient fires from surreptitious smoking as the open recognition of smoking, with provision of suitable facilities for smoking. Proper education and training of the staff and attendants in the ordinary fire hazards and their abatement is unquestionably essential. The problem is a broad one, varying with different types and arrangements of buildings; the effectiveness of rules of procedure, which need to be flexible, depends in large part on the management.

A.21.7.5.1 In addition to the provisions of 10.3.1, which deal with ignition resistance, additional requirements with respect to the location of cubicle curtains relative to sprinkler placement are included in NFPA 13, Standard for the Installation of Sprinkler Systems.

A.21.7.5.4(4) The percentage of decorations should be measured against the area of any wall or ceiling, not the aggregate total of walls, ceilings, and doors. The door is considered part of the wall. The decorations must be located such that they do not interfere with the operation of any door, sprinkler, smoke detector, or any other life safety equipment. Other art might include hanging objects or three-dimensional items.

A.21.7.5.5.2 It is the intent that this provision permits recycling of bottles, cans, paper, and similar clean items that do not contain grease, oil, flammable liquids, or significant plastic materials using larger containers or several adjacent containers and not require locating such containers in a room protected as a hazardous area. Containers for medical records awaiting shredding are often larger than 32 gal (121 L). These containers are not to be included in the calculations and limitations of 21.7.5.1. There is no limit on the number of these containers, as FM Approval Standard 6921.
Containers for Combustible Waste, ensures that the fire will not spread outside of the container. FM approval standards are written for use with FM Approvals. The tests can be conducted by any approved laboratory. The portions of the standard referring to FM Approvals are not included in this reference.

A.21.7.5.5.2(2)  See 21.7.5.5.1(3). [See 21.7.5.5.1(3).]

A.21.7.7  A document that provides recognized engineering principles for the testing of smoke control systems is NFPA 92, Standard for Smoke Control Systems.