

## SUPPLEMENT 4

# Life Safety Code® Enabling References

**Editor’s Note:** Supplement 4 provides users of NFPA 72®, *National Fire Alarm and Signaling Code*, with a summary of requirements from NFPA 101®, *Life Safety Code*®, 2009 edition, that relate to fire alarm systems and fire alarm system features.

Users of NFPA 72®, *National Fire Alarm and Signaling Code*, often ask when a fire alarm system is required or when certain fire alarm system features are needed. Generally speaking, NFPA 72 does not provide the answers to these questions. For “required” fire alarm systems, these requirements are found in occupancy, fire or building codes, or in local statutes. (For “nonrequired” fire alarm systems they must be determined by the system designer based on the goals and objectives of the building owner.) This supplement is intended to assist the user of NFPA 72 in understanding how to determine when a fire alarm system is required and what features and attributes it must have.

Within NFPA’s set of codes and standards, NFPA 101®, *Life Safety Code*®, 2009 edition, is the primary document used to establish these “enabling” requirements. This supplement provides a summary compilation of references and requirements from NFPA 101, grouped by occupancy and organized by related fire alarm system feature. This summary is only intended to provide a starting point for users, and the organization and presentation of the requirements contained in this summary have been subject to interpretation by the preparers of this supplement.

It is not intended that this supplement be used without consulting the complete requirements of NFPA 101, and it should not be assumed that this supplement includes a complete and total set of fire alarm requirements from NFPA 101. It is also important to note that many jurisdictions amend national codes at the local level. The reader is highly encouraged to review the *Life Safety Code* or local

codes and all local amendments before beginning any work, and if needed to consult with the authority having jurisdiction on matters of interpretation.

The use of NFPA 101, *Life Safety Code*, is fairly straightforward. The reader is directed first to the occupancy chapter that encompasses the building in question. This chapter will contain all requirements for the fire alarm system in sections entitled “Detection, Alarm, and Communications Systems.” The individual sections in each occupancy chapter will contain requirements that reference the requirements of Section 9.6. The requirements in Section 9.6 in turn reference NFPA 72, *National Fire Alarm Code*, for the remaining installation requirements. Refer to the following section for an excerpt of Section 9.6.

The occupancies that are included in this supplement are as follows:

- Assembly Occupancies, New and Existing — NFPA 101, Chapters 12 and 13
- Educational Occupancies, New and Existing — NFPA 101, Chapters 14 and 15
- Day-Care Occupancies, New and Existing — NFPA 101, Chapters 16 and 17
- Health Care Occupancies, New and Existing — NFPA 101, Chapters 18 and 19
- Ambulatory Health Care Occupancies, New and Existing — NFPA 101, Chapters 20 and 21
- Detention and Correctional Occupancies, New and Existing — NFPA 101, Chapters 22 and 23
- One- and Two-Family Dwellings — NFPA 101, Chapter 24

- Lodging or Rooming Houses — NFPA 101, Chapter 26
- Hotels and Dormitories, New and Existing — NFPA 101, Chapters 28 and 29
- Apartment Buildings, New and Existing — NFPA 101, Chapters 30 and 31
- Residential Board and Care Occupancies, New and Existing — NFPA 101, Chapters 32 and 33
- Mercantile Occupancies, New and Existing — NFPA 101, Chapters 36 and 37
- Business Occupancies, New and Existing — NFPA 101, Chapters 38 and 39
- Industrial Occupancies — NFPA 101, Chapter 40
- Storage Occupancies — NFPA 101, Chapter 42

High-rise buildings and special structures are addressed by the requirements of Chapter 11 in addition to the requirements of the applicable occupancy chapter, and related fire alarm system requirements are summarized in the next-to-last table of this supplement.

Additionally, the requirements of Chapters 1, 4, and 6 and the definitions in Chapter 3 of NFPA 101 apply generally. (The performance-based design requirements of Chapter 5 are not addressed in this summary.) The requirements of Chapters 7 and 8 also apply in addition to the requirements of the applicable occupancy chapter, and related fire alarm system requirements are summarized in the last table of this supplement.

Users of this supplement should note that excerpts from NFPA 101 and NFPA 72 in the summary tables are shown only once, are extracted without modification, and are shown in black text. References to the excerpted text and to other references in NFPA 101 are shown in red print to distinguish them from the extracted text.

## EXTRACTED SECTION 9.6 FROM THE LIFE SAFETY CODE

### 9.6 Fire Detection, Alarm, and Communications Systems.

#### 9.6.1\* General.

**A.9.6.1** The provisions of Section 9.6 cover the basic functions of a complete fire alarm system, including fire detection, alarm, and communications. These systems are primarily intended to provide the indication and warning of abnormal conditions, the summoning of appropriate aid, and the control of occupancy facilities to enhance protection of life.

Some of the provisions of Section 9.6 originated with NFPA 72, *National Fire Alarm Code*. For purposes of this Code, some provisions of Section 9.6 are more stringent

than those of NFPA 72, which should be consulted for additional details.

**9.6.1.1** The provisions of Section 9.6 shall apply only where specifically required by another section of this Code.

**9.6.1.2** Fire detection, alarm, and communications systems installed to make use of an alternative permitted by this Code shall be considered required systems and shall meet the provisions of this Code applicable to required systems.

**9.6.1.3** A fire alarm system required for life safety shall be installed, tested, and maintained in accordance with the applicable requirements of NFPA 70, *National Electrical Code*, and NFPA 72, *National Fire Alarm Code*, unless it is an approved existing installation, which shall be permitted to be continued in use.

**9.6.1.4** All systems and components shall be approved for the purpose for which they are installed.

**9.6.1.5\*** To ensure operational integrity, the fire alarm system shall have an approved maintenance and testing program complying with the applicable requirements of NFPA 70, *National Electrical Code*, and NFPA 72, *National Fire Alarm Code*.

**A.9.6.1.5** Records of conducted maintenance and testing and a copy of the certificate of compliance should be maintained.

**9.6.1.6\*** Where a required fire alarm system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the fire alarm system has been returned to service.

**A.9.6.1.6** A fire watch should at least involve some special action beyond normal staffing, such as assigning an additional security guard(s) to walk the areas affected. Such individuals should be specially trained in fire prevention and in occupant and fire department notification techniques, and they should understand the particular fire safety situation for public education purposes. (Also see NFPA 601, *Standard for Security Services in Fire Loss Prevention*.)

The term *out of service* in 9.6.1.6 is intended to imply that a significant portion of the fire alarm system is not in operation, such as an entire initiating device, signaling line, or notification appliance circuit. It is not the intent of the Code to require notification of the authority having jurisdiction, or evacuation of the portion of the building affected, for a single device or appliance.

**9.6.1.7** For the purposes of this *Code*, a complete fire alarm system shall provide functions for initiation, notification, and control, which shall perform as follows:

- (1) The initiation function provides the input signal to the system.
- (2) The notification function is the means by which the system advises that human action is required in response to a particular condition.
- (3) The control function provides outputs to control building equipment to enhance protection of life.

**9.6.1.8** Protection of Fire Alarm System.

**9.6.1.8.1\*** In areas that are not continuously occupied, and unless otherwise permitted by 9.6.1.8.1.1, 9.6.1.8.1.2, or 9.6.1.8.1.3, automatic smoke detection shall be installed to provide notification of fire at the following locations:

- (1) Each fire alarm control unit
- (2) Notification appliance circuit power extenders
- (3) Supervising station transmitting equipment

**A.9.6.1.8.1** The *Code* intends that only one smoke detector is required to be installed at the fire alarm control unit, the notification circuit power extenders, and the supervising station transmitting equipment, even when the area of the room would require more than one smoke detector if installed according to the spacing rules in *NFPA 72, National Fire Alarm Code*, Chapter 5.

**9.6.1.8.1.1** The provisions of 9.6.1.8.1(2) and 9.6.1.8.1(3) shall not apply to existing alarm systems.

**9.6.1.8.1.2** Where ambient conditions prohibit installation of a smoke detector, a heat detector shall be used.

**9.6.1.8.1.3** Automatic smoke detection shall not be required where buildings are protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7 and the area containing the fire alarm control unit is sprinklered

**9.6.2** Signal Initiation.

**9.6.2.1** Where required by other sections of this *Code*, actuation of the complete fire alarm system shall be initiated by, but shall not be limited to, any or all of the following means:

- (1) Manual fire alarm initiation
- (2) Automatic detection
- (3) Extinguishing system operation

**9.6.2.2** Manual fire alarm boxes shall be used only for fire-protective signaling purposes. Combination fire alarm and guard's tour stations shall be acceptable.

**9.6.2.3** A manual fire alarm box shall be provided as follows, unless modified by another section of this *Code*.

- (1) For new alarm system installations, the manual fire alarm box shall be located within 5 ft (1.5 m) of exit doorways.
- (2) For existing alarm system installations, the manual fire alarm box either shall be provided in the natural exit access path near each required exit or within 5 ft (1.5 m) of exit doorways.

**9.6.2.4** Manual fire alarm boxes shall be mounted on both sides of grouped openings over 40 ft (12.2 m) in width, and within 5 ft (1.5 m) of each side of the opening.

**9.6.2.5\*** Additional manual fire alarm boxes shall be located so that, on any given floor in any part of the building, no horizontal distance on that floor exceeding 200 ft (60 m) shall need to be traversed to reach a manual fire alarm box.

**A.9.6.2.5** It is not the intent of 9.6.2.4 to require manual fire alarm boxes to be attached to movable partitions or to equipment, nor is it the intent to require the installation of permanent structures for mounting purposes only.

**9.6.2.6\*** For fire alarm systems using automatic fire detection or waterflow detection devices to initiate the fire alarm system in accordance with Chapters 11 through 43, not less than one manual fire alarm box shall be provided to initiate a fire alarm signal. The manual fire alarm box shall be located where required by the authority having jurisdiction.

**A.9.6.2.6** The manual fire alarm box required by 9.6.2.6 is intended to provide a means to manually activate the fire alarm system when the automatic fire detection system or waterflow devices are out of service due to maintenance or testing, or where human discovery of the fire precedes automatic sprinkler system or automatic detection system activation. Where the fire alarm system is connected to a monitoring facility, the manual fire alarm box required by 9.6.2.6 should be connected to a separate circuit that is not placed "on test" when the detection or sprinkler system is placed "on test." The manual fire alarm box should be located in an area that is accessible to occupants of the building and should not be locked.

**9.6.2.7\*** Each manual fire alarm box on a system shall be accessible, unobstructed, and visible.

**A.9.6.2.7** Manual fire alarm boxes can include those with key-operated locks for detention areas or psychiatric hospitals, manual fire alarm boxes in areas where explosive vapors or dusts might be a hazard, or manual fire alarm boxes in areas with corrosive atmospheres. The appearance

of manual fire alarm boxes for special uses often differs from those used in areas of normal occupancy. Manual fire alarm boxes, such as those with locks, that are located in areas where the general public has limited access might need to have signage advising persons to seek assistance from staff in the event a fire is noted.

**9.6.2.8** Where a sprinkler system provides automatic detection and alarm system initiation, it shall be provided with an approved alarm initiation device that operates when the flow of water is equal to or greater than that from a single automatic sprinkler.

**9.6.2.9** Where a total (complete) coverage smoke detection system is required by another section of this *Code*, automatic detection of smoke in accordance with *NFPA 72, National Fire Alarm Code*, shall be provided in all occupiable areas, common areas, and work spaces in environments that are suitable for proper smoke detector operation.

### 9.6.2.10 Smoke Alarms.

#### 9.6.2.10.1 General.

**9.6.2.10.1.1** Where required by another section of this *Code*, single-station and multiple-station smoke alarms shall be in accordance with *NFPA 72, National Fire Alarm Code*, unless otherwise provided in 9.6.2.10.1.2, 9.6.2.10.1.3, or 9.6.2.10.1.4.

**9.6.2.10.1.2** The installation of smoke alarms in sleeping rooms shall be required where required by Chapters 11 through 43.

**9.6.2.10.1.3\*** The interconnection of smoke alarms shall apply only to new construction as provided in 9.6.2.10.3.

**A.9.6.2.10.1.3** *NFPA 72, National Fire Alarm Code*, mandates smoke alarms in all sleeping rooms, and interconnection of smoke alarms is required for both new and existing installations. Per 9.6.2.10.1.2, the residential occupancy chapters determine whether smoke alarms are needed within sleeping rooms. Paragraph 9.6.2.10.1.3 limits the requirement for interconnection of smoke alarms to those in new construction. This *Code* does not intend to require compliant, existing smoke alarm installations to be interconnected. This *Code* is periodically revised to add retrospective requirements only where the need is clearly substantiated.

**9.6.2.10.1.4** System smoke detectors in accordance with *NFPA 72, National Fire Alarm Code*, and arranged to function in the same manner as single-station or multiple-station smoke alarms shall be permitted in lieu of smoke alarms.

**9.6.2.10.2** Smoke alarms, other than existing battery-operated smoke alarms as permitted by other sections of this *Code*, shall be powered in accordance with the requirements of *NFPA 72, National Fire Alarm Code*.

**9.6.2.10.3\*** In new construction, where two or more smoke alarms are required within a dwelling unit, suite of rooms, or similar area, they shall be arranged so that operation of any smoke alarm shall cause the alarm in all smoke alarms within the dwelling unit, suite of rooms, or similar area to sound, unless otherwise permitted by the following:

- (1) The requirement of 9.6.2.10.3 shall not apply where permitted by another section of this *Code*.
- (2) The requirement of 9.6.2.10.3 shall not apply to configurations that provide equivalent distribution of the alarm signal.

**A.9.6.2.10.3** A dwelling unit is that structure, area, room, or combination of rooms, including hotel rooms/suites, in which a family or individual lives. A dwelling unit includes living areas only and not common usage areas in multifamily buildings, such as corridors, lobbies, and basements.

**9.6.2.10.4** The alarms shall sound only within an individual dwelling unit, suite of rooms, or similar area and shall not actuate the building fire alarm system, unless otherwise permitted by the authority having jurisdiction. Remote annunciation shall be permitted.

**9.6.2.11** Where required by Chapter 11 through Chapter 43, an automatic fire detection system shall be provided in hazardous areas for initiation of the signaling system.

### 9.6.3 Occupant Notification.

**9.6.3.1** Occupant notification shall be provided to alert occupants of a fire or other emergency where required by other sections of this *Code*.

**9.6.3.2** Occupant notification shall be in accordance with 9.6.3.3 through 9.6.3.10.2, unless otherwise provided in 9.6.3.2.1 through 9.6.3.2.4.

**9.6.3.2.1\*** Elevator lobby, hoistway, and associated machine room smoke detectors used solely for elevator recall, and heat detectors used solely for elevator power shutdown, shall not be required to activate the building evacuation alarm if the power supply and installation wiring to such detectors are monitored by the building fire alarm system, and if the activation of such detectors initiates a supervisory signal at a constantly attended location.

**A.9.6.3.2.1** Elevator lobbies have been considered areas subject to unwanted alarms due to factors such as low ceil-

ings and smoking. In the past several years, new features have become available to reduce this problem. These features are, however, not necessarily included in any specific installation.

**9.6.3.2.2\*** Smoke detectors used solely for closing dampers or heating, ventilating, and air-conditioning system shutdown shall not be required to activate the building evacuation alarm, provided that the power supply and installation wiring to the detectors are monitored by the building fire alarm system, and the activation of the detectors initiates a supervisory signal at a constantly attended location.

**A.9.6.3.2.2** The concept addressed is that detectors used for releasing service, such as door or damper closing and fan shutdown, are not required to sound the building alarm.

**9.6.3.2.3\*** Smoke detectors located at doors for the exclusive operation of automatic door release shall not be required to activate the building evacuation alarm, provided that the power supply and installation wiring to the detectors are monitored by the building fire alarm system, and the activation of the detectors initiates a supervisory signal at a constantly attended location.

**A.9.6.3.2.3** The concept addressed is that detectors used for releasing service, such as door or damper closing and fan shutdown, are not required to sound the building alarm.

**9.6.3.2.4** Detectors in accordance with 22.3.4.3.1(2) and 23.3.4.3.1(2) shall not be required to activate the building evacuation alarm.

**9.6.3.3** Where permitted by Chapter 11 through Chapter 43, a presignal system shall be permitted where the initial fire alarm signal is automatically transmitted without delay to a municipal fire department, to a fire brigade (if provided), and to an on-site staff person trained to respond to a fire emergency.

**9.6.3.4** Where permitted by Chapter 11 through Chapter 43, a positive alarm sequence shall be permitted, provided that it is in accordance with *NFPA 72, National Fire Alarm Code*.

**9.6.3.5** Unless otherwise provided in 9.6.3.5.1 through 9.6.3.5.8, notification signals for occupants to evacuate shall be audible and visible signals in accordance with *NFPA 72, National Fire Alarm Code*, and *ICC/ANSI A117.1, American National Standard for Accessible and Usable Buildings and Facilities*, or other means of notification acceptable to the authority having jurisdiction shall be provided.

**9.6.3.5.1** Areas not subject to occupancy by persons who are hearing impaired shall not be required to comply with the provisions for visible signals.

**9.6.3.5.2** Visible-only signals shall be provided where specifically permitted in health care occupancies in accordance with the provisions of Chapter 18 and Chapter 19.

**9.6.3.5.3** Existing alarm systems shall not be required to comply with the provision for visible signals.

**9.6.3.5.4** Visible signals shall not be required in lodging or rooming houses in accordance with the provisions of Chapter 26.

**9.6.3.5.5** Visible signals shall not be required in exit stair enclosures.

**9.6.3.5.6** Visible signals shall not be required in elevator cars.

**9.6.3.5.7\*** Public mode visual notification appliances in accordance with *NFPA 72* shall not be required in designated areas as permitted by Chapters 11 through 43, provided that they are replaced with approved alternative visible means.

**A.9.6.3.5.7** Visual notification appliances installed in large volume spaces, such as arenas, stadiums, malls and atriums, can be alternative devices which are not listed as visible notification appliances for fire alarm systems provided that the notification objective of the visual signal is reasonably achieved. Examples of alternative devices include, but are not limited to, scoreboards, message boards, and other electronic devices that meet the performance objectives of visible fire alarm appliances in large volume spaces.

It is the intent to permit the omission of visible notification appliances as identified in 9.6.3.5.7 provided that the adjacent areas that have not been specifically designated as exempt are provided with visible notification as required by 9.6.3.5.

**9.6.3.5.8\*** Where visible signals are not required, as permitted by 9.6.3.5.7, documentation of such omission shall be maintained in accordance with 9.7.7.

**A.9.6.3.5.8** Documentation should be maintained with the as-built drawings so that inspection and testing personnel understand that the visible appliances have been exempted from certain areas and, therefore, can note the deviation on the acceptance test documentation and ongoing inspection reports. This will provide inspection and testing personnel with necessary details regarding the omission of visible notification appliances.

**9.6.3.6** The general evacuation alarm signal shall operate in accordance with one of the methods prescribed by 9.6.3.6.1 through 9.6.3.6.3.

**9.6.3.6.1** The general evacuation alarm signal shall operate throughout the entire building.

**9.6.3.6.2\*** Where total evacuation of occupants is impractical due to building configuration, only the occupants in the affected zones shall be notified initially. Provisions shall be made to selectively notify occupants in other zones to afford orderly evacuation of the entire building.

**A.9.6.3.6.2** To approve an evacuation plan to selectively notify building occupants, the authority having jurisdiction should consider several building parameters, including building compartmentation, detection and suppression system zones, occupant loads, and the number and arrangement of the means of egress.

In high-rise buildings, it is typical to evacuate the fire floor, the floor(s) above, and the floor immediately below. Other areas are then evacuated as the fire develops.

**9.6.3.6.3** Where occupants are incapable of evacuating themselves because of age, physical or mental disabilities, or physical restraint, the private operating mode as described in *NFPA 72, National Fire Alarm Code*, shall be permitted to be used. Only the attendants and other personnel required to evacuate occupants from a zone, area, floor, or building shall be required to be notified. The notification shall include means to readily identify the zone, area, floor, or building in need of evacuation.

**9.6.3.6.4** The general evacuation signal shall not be required to operate in exit stair enclosures.

**9.6.3.6.5** The general evacuation signal shall not be required to operate in elevator cars.

**9.6.3.7** Audible alarm notification appliances shall be of such character and so distributed as to be effectively heard above the average ambient sound level that exists under normal conditions of occupancy.

**9.6.3.8** Audible alarm notification appliances shall produce signals that are distinctive from audible signals used for other purposes in a given building.

**9.6.3.9** Automatically transmitted or live voice evacuation or relocation instructions shall be permitted to be used to notify occupants and shall comply with either 9.6.3.9.1 or 9.6.3.9.2.

**9.6.3.9.1** Automatically transmitted or live voice evacuation or relocation instructions shall be in accordance with *NFPA 72, National Fire Alarm Code*.

**9.6.3.9.2\*** Where permitted by Chapters 11 through 43, automatically transmitted or live voice announcements shall be permitted to be made via a voice communication or public address system that complies with the following:

- (1) Occupant notification, either live or recorded, shall be initiated at a constantly attended receiving station by personnel trained to respond to an emergency.
- (2) An approved secondary power supply shall be provided for other than existing, previously approved systems.
- (3) The system shall be audible above the expected ambient noise level.
- (4) Emergency announcements shall take precedence over any other use.

**A.9.6.3.9.2** The provisions of 9.6.3.9.2 offer an alternative to the emergency voice alarm and communications system provisions (live voice or recorded voice announcements) of *NFPA 72, National Fire Alarm Code*. Occupancies, such as large-venue assembly occupancies and mercantile mall buildings, are occupancies in which the physical configuration (e.g., large-volume spaces), function, and human behavior (including elevated levels of occupant-generated noise) present challenges with respect to effective occupant notification by standard means in accordance with *NFPA 72*. Because the routine operation of these occupancies demands highly reliant, acoustically capable, and sufficiently audible public address systems, properly trained staff can be relied on to use these public address systems to effect occupant evacuation, relocation, or both.

As 9.6.3.9.2 specifically permits an alternative means of notification to that prescribed by *NFPA 72*, it does not mandate that the secondary power supply and the intelligibility and audibility facets of the public address system comply with *NFPA 72* or suggest that equivalency with the related provisions of *NFPA 72* is required. However, it is anticipated that, when approving the secondary power and audibility capabilities of public address systems, authorities having jurisdiction will ensure that these systems are conceptually comparable to the emergency voice alarm and communications system provisions of *NFPA 72*, such that a reliable and effective occupant notification system is provided.

**9.6.3.10** Unless otherwise permitted by another section of this *Code*, audible and visible fire alarm notification appliances shall comply with either 9.6.3.10.1 or 9.6.3.10.2.

**9.6.3.10.1** Audible and visible fire alarm notification appliances shall be used only for fire alarm system or other emergency purposes.

**9.6.3.10.2** Emergency voice/alarm communication systems shall be permitted to be used for other purposes, subject to the approval of the authority having jurisdiction, if the fire alarm system takes precedence over all other signals, with the exception of mass notification inputs.

#### **9.6.4 Emergency Forces Notification.**

**9.6.4.1** Where required by another section of this *Code*, emergency forces notification shall be provided to alert the municipal fire department and fire brigade (if provided) of fire or other emergency.

**9.6.4.2** Where fire department notification is required by another section of this *Code*, the fire alarm system shall be arranged to transmit the alarm automatically via any of the following means acceptable to the authority having jurisdiction and shall be in accordance with *NFPA 72, National Fire Alarm Code*:

- (1) Auxiliary fire alarm system
- (2) Central station fire alarm system
- (3) Proprietary supervising station fire alarm system
- (4) Remote supervising station fire alarm system

**9.6.4.3** For existing installations where none of the means of notification specified in 9.6.4.2(1) through (4) are available, an approved plan for notification of the municipal fire department shall be permitted.

#### **9.6.5 Fire Safety Functions.**

**9.6.5.1** Fire safety functions shall be installed in accordance with the requirements of *NFPA 72, National Fire Alarm Code*.

**9.6.5.2** Where required by another section of this *Code*, the following functions shall be actuated:

- (1) Release of hold-open devices for doors or other opening protectives
- (2) Stairwell or elevator shaft pressurization
- (3) Smoke management or smoke control systems
- (4) Unlocking of doors
- (5) Elevator recall and shutdown

**9.6.6 Location of Controls.** Operator controls, alarm indicators, and manual communications capability shall be installed at a convenient location acceptable to the authority having jurisdiction.

#### **9.6.7 Annunciation.**

**9.6.7.1** Where alarm annunciation is required by another section of this *Code*, it shall comply with 9.6.7.2 through 9.6.7.7.

**9.6.7.2** Alarm annunciation at the control center shall be by means of audible and visible indicators.

**9.6.7.3** For the purposes of alarm annunciation, each floor of the building, other than floors of existing buildings, shall be considered as not less than one zone, unless otherwise permitted by 9.6.7.4.3, 9.6.7.4.4, 9.6.7.4.5 or as another section of this *Code*.

**9.6.7.4** If a floor area exceeds 22,500 ft<sup>2</sup> (2090 m<sup>2</sup>), additional fire alarm zoning shall be provided, and the length of any single fire alarm zone shall not exceed 300 ft (91 m) in any direction, except as provided in 9.6.7.4.1 through 9.6.7.4.5 or otherwise modified by another section of this *Code*.

**9.6.7.4.1** Where permitted by another section of this *Code*, fire alarm zones shall be permitted to exceed 22,500 ft<sup>2</sup> (2090 m<sup>2</sup>), and the length of a zone shall be permitted to exceed 300 ft (91 m) in any direction.

**9.6.7.4.2** Where the building is protected by an automatic sprinkler system in accordance with 9.7.1.1(1), the area of the fire alarm zone shall be permitted to coincide with the allowable area of the sprinkler system.

**9.6.7.4.3** Unless otherwise prohibited elsewhere in this *Code*, where a building not exceeding four stories in height is protected by an automatic sprinkler system in accordance with 9.7.1.1(1), the sprinkler system shall be permitted to be annunciated on the fire alarm system as a single zone.

**9.6.7.4.4** Where the building is protected by an automatic sprinkler system in accordance with 9.7.1.1(2), the sprinkler system shall be permitted to be annunciated on the fire alarm system as a single zone.

**9.6.7.4.5** Where the building is protected by an automatic sprinkler system in accordance with 9.7.1.1(3), the sprinkler system shall be permitted to be annunciated on the fire alarm system as a single zone.

**9.6.7.6** A system supervisory signal shall be annunciated at the control center by means of audible and visible indicators.

**9.6.7.7** Where the system serves more than one building, each building shall be annunciated separately.

**LIFE SAFETY CODE OCCUPANCY TABLES**

**Assembly Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**12.1.1 Application.** The requirements of this chapter shall apply to new buildings or portions thereof used as an assembly occupancy (see 1.3.1).

**13.1.1 Application.**

**13.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as assembly occupancies, unless oth-

erwise specified by 13.1.1.2. (See 3.3.178.2 for definition of assembly occupancy.)

**3.3.178.2\* Assembly Occupancy.** An occupancy (1) used for a gathering of 50 or more persons for deliberation, worship, entertainment, eating, drinking, amusement, awaiting transportation, or similar uses; or (2) used as a special amusement building, regardless of occupant load.

**Assembly Occupancies**

	New Assembly		Existing Assembly	
	101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system	12.3.4.1.1	Assembly occupancies with occupant loads of more than 300 and all theaters with more than one audience-viewing room shall be provided with an approved fire alarm system in accordance with 9.6.1 and 12.3.4, unless otherwise permitted by 12.3.4.1.2	13.3.4.1.1	Assembly occupancies with occupant loads of more than 300 and all theaters with more than one audience-viewing room shall be provided with an approved fire alarm system in accordance with 9.6.1 and 13.3.4, unless otherwise permitted by the: 13.3.4.1.2, 13.3.4.1.3, or 13.3.4.1.4
	12.3.4.1.2	Assembly occupancies that are a part of a multiple occupancy protected as a mixed occupancy (see 6.1.14) shall be permitted to be served by a common fire alarm system, provided that the individual requirements of each occupancy are met.	13.3.4.1.2	Assembly occupancies that are a part of a multiple occupancy protected as a mixed occupancy (see 6.1.14) shall be permitted to be served by a common fire alarm system, provided that the individual requirements of each occupancy are met.
			13.3.4.1.3	Voice communication or public address systems complying with 13.3.4.3.6 shall not be required to comply with 9.6.1.
			13.3.4.1.4	This requirement of 13.3.4.1.1 shall not apply to assembly occupancies where, in the judgment of the authority having jurisdiction, adequate alternative provisions exist or are provided for the discovery of a fire and for alerting the occupants promptly.

<p>Fire alarm signal initiation</p>	<p>Manual initiation</p>	<p>12.3.4.2.1</p>	<p>Initiation of the required fire alarm system shall be by both of the following means:                  (1) Manual means in accordance with 9.6.2.1(1), unless otherwise permitted by the following:                  (a) The requirement of 12.3.4.2.1(1) shall not apply where initiation is by means of an approved automatic fire detection system in accordance with 9.6.2.1(2) that provides fire detection throughout the building.                  (b) The requirement of 12.3.4.2.1(1) shall not apply where initiation is by means of an approved automatic sprinkler system in accordance with 9.6.2.1(3) that provides fire detection and protection throughout the building.                  (2) Where automatic sprinklers are provided, sprinkler system waterflow shall initiate the fire alarm system, even where manual fire alarm boxes are provided in accordance with 12.3.4.2.1(1).                  Also see 12.3.4.2.2 below.</p>
		<p>13.3.4.2.1</p>	<p>Initiation of the required fire alarm system shall be by both of the following means, and the system shall be provided with an emergency power source:                  (1) Manual means in accordance with 9.6.2.1(1), unless otherwise permitted by the following:                  (a) The requirement of 13.3.4.2.1(1) shall not apply where initiation is by means of an approved automatic fire detection system in accordance with 9.6.2.1(2) that provides fire detection throughout the building.                  (b) The requirement of 13.3.4.2.1(1) shall not apply where initiation is by means of an approved automatic sprinkler system in accordance with 9.6.2.1(3) that provides fire detection and protection throughout the building.                  (2) Where automatic sprinklers are provided, sprinkler system waterflow shall initiate the fire alarm system, even where manual fire alarm boxes are provided in accordance with 13.3.4.2.1(1).                  Also see 13.3.4.2.2 below.</p>
	<p>Automatic detection</p>	<p>12.3.4.2.3</p>	<p>In assembly occupancies with occupant loads of more than 300, automatic detection shall be provided in all hazardous areas that are not normally occupied, unless such areas are protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.                  Also see 12.3.4.2.1(1) above and 12.3.4.2.2 below.                  Also see 12.3.6, 12.4.3.3.4, 12.4.5.5.1.2, 12.4.5.7.1, 12.4.7.6, 12.7.5.3.7.1, and 12.7.12 in NFPA 101.</p>
		<p>13.3.4.2.3</p>	<p>In assembly occupancies with occupant loads of more than 300, automatic detection shall be provided in all hazardous areas that are not normally occupied, unless such areas are protected throughout by an approved automatic sprinkler system in accordance with Section 9.7.                  Also see 13.3.4.2.1(1) above and 13.3.4.2.2 below.                  Also see 13.4.5.5.1.2, 13.4.7.6, 13.7.5.3.7.1, and 13.7.12 in NFPA 101.</p>

(continues)

		New Assembly		Existing Assembly	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm signal initiation (continued)	Automatic detection (continued)	12.4.7.4	<p><b>Special Amusement Buildings</b> Where the nature of the special amusement building is such that it operates in reduced lighting levels, the building shall be protected throughout by an approved automatic smoke detection system in accordance with Section 9.6.</p> <p>Actuation of any smoke detection system device shall sound an alarm at a constantly attended location on the premises.</p> <p>See 9.7.2.2 below. Also see 12.3.4.2.1(2) and 12.3.4.2.3 above. Also see 12.3.5 and 12.4.7.2 in NFPA 101 for extinguishing system requirements.</p>	13.4.7.4	<p><b>Special Amusement Buildings</b> Where the nature of the special amusement building is such that it operates in reduced lighting levels, the building shall be protected throughout by an approved automatic smoke detection system in accordance with Section 9.6.</p> <p>Actuation of any smoke detection system device shall sound an alarm at a constantly attended location on the premises.</p> <p>See 9.7.2.2 below. See 13.3.4.2.1(2) and 13.3.4.2.3 above. Also see 13.3.5 and 13.4.7.2 in NFPA 101 for extinguishing system requirements.</p>
	Extinguishing system operation	12.4.7.5	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p> <p>Also see 12.3.4.2.1(2) and 12.3.4.2.3 above. Also see 12.3.5 and 12.4.7.2 in NFPA 101 for extinguishing system requirements.</p>	13.4.7.5	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p> <p>Also see 13.3.4.2.1(2) and 13.3.4.2.3 above. Also see 13.3.5 and 13.4.7.2 in NFPA 101 for extinguishing system requirements.</p>
FAS supervisory signal initiation	Extinguishing system supervision	9.7.2.1	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p> <p>Also see 12.3.4.2.1(2) and 12.3.4.2.3 above. Also see 12.3.5 and 12.4.7.2 in NFPA 101 for extinguishing system requirements.</p>	9.7.2.1	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p> <p>Also see 13.3.4.2.1(2) and 13.3.4.2.3 above. Also see 13.3.5 and 13.4.7.2 in NFPA 101 for extinguishing system requirements.</p>

Occupant notification	Audible/visible	12.3.4.3	The required fire alarm system shall activate an audible and visible alarm in a constantly attended receiving station within the building when occupied for purposes of initiating emergency action.	13.3.4.3	The required fire alarm system shall activate an audible alarm in a constantly attended receiving station within the building when occupied for purposes of initiating emergency action.
	Positive alarm sequence	12.3.4.3.1	Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.	13.3.4.3.1	Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
	Presignal system		Not addressed.	13.3.4.3.2	A presignal system in accordance with 9.6.3.3 shall be permitted.
	Voice announcements	12.3.4.3.3	Occupant notification shall be by means of voice announcements, in accordance with 9.6.3.9, initiated by the person in the constantly attended receiving station.	13.3.4.3.3	Occupant notification shall be by means of voice announcements in accordance with 9.6.3.9 initiated by the person in the constantly attended receiving station.
		12.3.4.3.4	Occupant notification shall be by means of visible signals in accordance with 9.6.3.5, initiated by the person in the constantly attended receiving station, unless otherwise permitted by 12.3.4.3.5.		
		12.3.4.3.5	Visible signals shall not be required in the assembly seating area, or the floor area used for the contest, performance, or entertainment, where the occupant load exceeds 1000 and an approved, alternative visible means of occupant notification is provided. (See 9.6.3.5.7.)		
		12.3.4.3.6	The announcement shall be permitted to be made via a voice communication or public address system in accordance with 9.6.3.9.2.	13.3.4.3.6	The announcement shall be permitted to be made via a voice communication or public address system in accordance with 9.6.3.9.2.
	12.3.4.3.7	Where the authority having jurisdiction determines that a constantly attended receiving station is impractical, both of the following shall be provided: (1) Automatically transmitted evacuation or relocation instructions shall be provided in accordance with <i>NFPA 72, National Fire Alarm Code</i> . (2) The system shall be monitored by a supervising station in accordance with <i>NFPA 72, National Fire Alarm Code</i> .	13.3.4.3.7	Where the authority having jurisdiction determines that a constantly attended receiving station is impractical, automatically transmitted evacuation or relocation instructions shall be provided in accordance with <i>NFPA 72, National Fire Alarm Code</i> .	
					Also see 13.3.4.1.3 above.

(continues)

		New Assembly		Existing Assembly	
		101 Ref.	Requirement	101 Ref.	Requirement
Occupant notification (continued)	Other provisions	12.3.4.2.2	The initiating device shall be capable of transmitting an alarm to a receiving station, located within the building, that is constantly attended when the assembly occupancy is occupied.	13.3.4.2.2	The initiating device shall be capable of transmitting an alarm to a receiving station, located within the building, that is constantly attended when the assembly occupancy is occupied.
	Emergency forces notification	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  Also see 12.3.4.2.1(2) and 12.3.4.2.3 above. Also see 12.3.5 and 12.4.7.2 in NFPA 101 for extinguishing system requirements.	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  Also see 13.3.4.2.1(2) and 13.3.4.2.3 above. Also see 13.3.5 and 13.4.7.2 in NFPA 101 for extinguishing system requirements.
Annunciator			Not addressed.		Not addressed.
Emergency control (fire safety) functions			See separate summary table for emergency control (fire safety) functions, where applicable.		See separate summary table for emergency control (fire safety) functions, where applicable.

**Educational Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**15.1.1 Application.**

**15.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as educational occupancies.

**14.1.1 Application.**

**14.1.1.1** The requirements of this chapter shall apply to new buildings or portions thereof used as educational occupancies (*see 1.3.1*).

**3.3.178.6 Educational Occupancy.** An occupancy used for educational purposes through the twelfth grade by six or more persons for 4 or more hours per day or more than 12 hours per week.

**Educational Occupancies**

		New Educational		Existing Educational	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system	Manual initiation	14.3.4.1.1	Educational occupancies shall be provided with a fire alarm system in accordance with Section 9.6.	15.3.4.1.1	Educational occupancies shall be provided with a fire alarm system in accordance with Section 9.6.
	Signal initiation	14.3.4.1.2	The requirement of 14.3.4.1.1 shall not apply to buildings meeting all of the following criteria: (1) Buildings having an area not exceeding 1000 ft <sup>2</sup> (93 m <sup>2</sup> ) (2) Buildings containing a single classroom (3) Buildings located not less than 30 ft (9.2 m) from another building	15.3.4.1.2	The requirement of 15.3.4.1.1 shall not apply to buildings meeting all of the following criteria: (1) Buildings having an area not exceeding 1000 ft <sup>2</sup> (93 m <sup>2</sup> ) (2) Buildings containing a single classroom (3) Buildings located not less than 30 ft (9.2 m) from another building
Fire alarm signal initiation	Manual initiation	14.3.4.2.1	Initiation of the required fire alarm system, other than as permitted by 14.3.4.2.3, shall be by manual means in accordance with 9.6.2.1(1).	15.3.4.2.1	Initiation of the required fire alarm system shall be by manual means in accordance with 9.6.2.1(1), unless otherwise permitted by the following:
		14.3.4.2.3	Manual fire alarm boxes shall be permitted to be eliminated in accordance with 14.3.4.2.3.1 or 14.3.4.2.3.2.		(1) Manual fire alarm boxes shall not be required where permitted by 15.3.4.2.3.
		14.3.4.2.3.1	Manual fire alarm boxes shall be permitted to be eliminated where all of the following conditions apply: (1) Interior corridors are protected by smoke detectors using an alarm verification system as described in NFPA 72, <i>National Fire Alarm Code</i> .		(2) In buildings where all normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, the manual fire alarm boxes shall not be required, except in locations specifically designated by the authority having jurisdiction.

(continues)

		New Educational		Existing Educational	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm signal initiation (continued)	Manual initiation (continued)		<p>(2) Auditoriums, cafeterias, and gymnasiums are protected by heat-detection devices or other approved detection devices.</p> <p>(3) Shops and laboratories involving dusts or vapors are protected by heat-detection devices or other approved detection devices.</p> <p>(4) Provision is made at a central point to manually activate the evacuation signal or to evacuate only affected areas.</p> <p>Manual fire alarm boxes shall be permitted to be eliminated where all of the following conditions apply:</p> <p>(1) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.</p> <p>(2) Provision is made at a central point to manually activate the evacuation signal or to evacuate only affected areas.</p>	<p>15.3.4.2.3</p> <p>15.3.4.2.3.1</p>	<p>Manual fire alarm boxes shall be permitted to be eliminated in accordance with 15.3.4.2.3.1 or 15.3.4.2.3.2.</p> <p>Manual fire alarm boxes shall be permitted to be eliminated where all of the following conditions apply:</p> <p>(1) Interior corridors are protected by smoke detectors using an alarm verification system as described in NFPA 72, <i>National Fire Alarm Code</i>.</p> <p>(2) Auditoriums, cafeterias, and gymnasiums are protected by heat-detection devices or other approved detection devices.</p> <p>(3) Shops and laboratories involving dusts or vapors are protected by heat-detection devices or other approved detection devices.</p> <p>(4) Provision is made at a central point to manually activate the evacuation signal or to evacuate only affected areas.</p> <p>Manual fire alarm boxes shall be permitted to be eliminated where all of the following conditions apply:</p> <p>(1) The building is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7.</p> <p>(2) Provision is made at a central point to manually activate the evacuation signal or to evacuate only affected areas.</p>
	Automatic detection	14.3.4.2.3.2	<p>See 14.3.4.2.3.1 above.</p> <p>Also see 14.7.4.2(2) in NFPA 101.</p>	<p>15.3.4.2.3.2</p>	<p>See 15.3.4.2.3.1 above.</p> <p>Also see 15.7.4.2(2) in NFPA 101.</p>
	Extinguishing system operation	14.3.4.2.2	<p>In buildings provided with automatic sprinkler protection, the operation of the sprinkler system shall automatically activate the fire alarm system in addition to the initiation means required in 14.3.4.2.1.</p> <p>Also see 9.7.2.2 below.</p>	15.3.4.2.2	<p>In buildings provided with automatic sprinkler protection, the operation of the sprinkler system shall automatically activate the fire alarm system in addition to the initiation means required in 15.3.4.2.1.</p> <p>Also see 9.7.2.2 below.</p>

<p>FAS supervisory signal initiation</p>	<p>Extinguishing system supervision</p>	<p>9.7.2.1</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p> <p>Also see 14.3.4.2.3.2 above. Also see 14.3.5 in NFPA 101 for extinguishing system requirements and 14.3.6, 14.3.7, and 14.7.4 for additional extinguishing system provisions.</p>	<p>Also see 15.3.4.2.3.2 above. Also see 15.3.5 in NFPA 101 for extinguishing system requirements and 15.3.6, 15.3.7, and 15.7.4 for additional extinguishing system provisions.</p>
<p>Occupant notification</p>	<p>Audible/visible</p> <p>Positive alarm sequence</p> <p>Presignal system</p> <p>Voice announcements</p> <p>Other provisions</p>	<p>14.3.4.3.1.1</p> <p>14.3.4.3.1.2</p> <p>15.3.4.3.1.1</p> <p>15.3.4.3.1.2</p> <p>15.3.4.3.1.3</p>	<p>Occupant notification shall be accomplished automatically in accordance with 9.6.3.</p> <p>Positive alarm sequence shall be permitted in accordance with 9.6.3.4.</p> <p>Not addressed.</p> <p>Not specifically addressed; however, see 9.6.3.9.</p> <p>Where installed and operated per NFPA 72, <i>National Fire Alarm Code</i>, the fire alarm system shall be permitted to be used for other emergency signaling or for class changes.</p>	<p>Occupant notification shall be accomplished automatically in accordance with 9.6.3.</p> <p>Positive alarm sequence shall be permitted in accordance with 9.6.3.4.</p> <p>Not addressed.</p> <p>Not specifically addressed; however, see 9.6.3.9.</p> <p>Where acceptable to the authority having jurisdiction, the fire alarm system shall be permitted to be used for other emergency signaling or for class changes, provided that the fire alarm is distinctive in signal and overrides all other use.</p>

(continues)

		<i>Educational Occupancies Continued</i>	
		New Educational	Existing Educational
	101 Ref.	Requirement	101 Ref.
Occupant notification (continued)	14.3.4.3.1.4	To prevent students from being returned to a building that is burning, the recall signal shall be separate and distinct from any other signals, and such signal shall be permitted to be given by use of distinctively colored flags or banners.	15.3.4.3.1.4
	14.3.4.3.1.5	If the recall signal required by 14.3.4.3.1.4 is electric, the push buttons or other controls shall be kept under lock, the key for which shall be in the possession of the principal or another designated person in order to prevent a recall at a time when there is an actual fire.	15.3.4.3.1.5
	14.3.4.3.1.6	Regardless of the method of recall signal, the means of giving the recall signal shall be kept under lock.	15.3.4.3.1.6
Emergency forces notification	14.3.4.3.2	Fire department notification shall be accomplished in accordance with 9.6.4.	15.3.4.3.2
	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  Also see 14.3.4.2.2 and 14.3.4.2.3.2 above. Also see 14.3.5 in NFPA 701 for extinguishing system requirements and 14.3.6, 14.3.7, and 14.7.4 for additional extinguishing system provisions.	9.7.2.2
Annunciator		Not addressed.	
Emergency control (fire safety) functions		See separate summary table for emergency control (fire safety) functions, where applicable.	
			Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  Also see 15.3.4.2.2 and 15.3.4.2.3.2 above. Also see 15.3.5 in NFPA 701 for extinguishing system requirements and 15.3.6, 15.3.7, and 15.7.4 for additional extinguishing system provisions.
		Not addressed.	
		See separate summary table for emergency control (fire safety) functions, where applicable.	

**Day Care Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**16.1.1\* Application.**

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

**17.1.1\* Application.**

**17.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as day-care occupancies.

**3.3.178.4 Day-Care Occupancy.** An occupancy in which four or more clients receive care, maintenance, and supervision, by other than their relatives or legal guardians, for less than 24 hours per day.

**3.3.131.1\* Day-Care Home.** A building or portion of a building in which more than 3 but not more than 12 clients receive care, maintenance, and supervision, by other than their relative(s) or legal guardians(s), for less than 24 hours per day.

The following excerpts from NFPA 72, 2010 edition, are provided for reference:

**3.3.100 Fire Warning Equipment.** Any detector, alarm, device, or material related to single- and multiple-station alarms or household fire alarm systems.

**3.3.149 Multiple Station Alarm.** A single station alarm capable of being interconnected to one or more additional alarms so that the actuation of one causes the appropriate alarm signal to operate in all interconnected alarms.

**3.3.245 Single Station Alarm.** A detector comprising an assembly that incorporates a sensor, control components, and an alarm notification appliance in one unit operated from a power source either located in the unit or obtained at the point of installation.

**3.3.251 Smoke Alarm.** A single or multiple station alarm responsive to smoke.

**Day Care Occupancies**

	New Day Care		Existing Day Care	
	101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system/fire warning equipment	16.3.4.1	Day-care occupancies, other than day-care occupancies housed in one room, having at least one door opening directly to the outside at grade plane or to an exterior exit access balcony in accordance with 7.5.3, shall be provided with a fire alarm system in accordance with Section 9.6.	17.3.4.1	Day-care occupancies, other than day-care occupancies housed in one room, shall be provided with a fire alarm system in accordance with Section 9.6.
Fire alarm signal initiation	16.3.4.2	Initiation of the required fire alarm system shall be by manual means and by operation of any required smoke detectors and required sprinkler systems. (See 16.3.4.5.)	17.3.4.2	Initiation of the required fire alarm system shall be by manual means and by operation of any required smoke detectors and required sprinkler systems. (See 17.3.4.5.)

(continues)

		New Day Care		Existing Day Care	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm signal initiation (continued)	Automatic detection	16.3.4.5	A smoke detection system in accordance with Section 9.6 shall be installed in day-care occupancies, other than those housed in one room, having at least one door opening directly to the outside at grade plane or to an exterior exit access balcony in accordance with 7.5.3, and such system shall comply with both of the following:  (1) Detectors shall be installed on each story in front of the doors to the stairways and in the corridors of all floors occupied by the day-care occupancy.  (2) Detectors also shall be installed in lounges, recreation areas, and sleeping rooms in the day-care occupancy.	17.3.4.5	A smoke detection system in accordance with Section 9.6 shall be installed in day-care occupancies, other than those housed in one room or those housing clients capable of self-preservation where no sleeping facilities are provided, and such system shall comply with both of the following:  (1) Detectors shall be installed on each story in front of the doors to the stairways and in the corridors of all floors occupied by the day-care occupancy.  (2) Detectors shall be installed in lounges, recreation areas, and sleeping rooms in the day-care occupancy.
		16.6.3.4.1  16.6.3.4.2  16.6.3.4.3	<b>Day-Care Homes</b>  Smoke alarms shall be installed within day-care homes in accordance with 9.6.2.10.  Where a day-care home is located within a building of another occupancy, such as in an apartment building or office building, any corridors serving the day-care home shall be provided with a smoke detection system in accordance with Section 9.6.  Single-station or multiple-station smoke alarms or smoke detectors shall be provided in all rooms used for sleeping in accordance with 9.6.2.10.	17.6.3.4.1  17.6.3.4.2  17.6.3.4.3  17.6.3.4.4	<b>Day-Care Homes</b>  Smoke alarms shall be installed within day-care homes in accordance with 9.6.2.10.  Where a day-care home is located within a building of another occupancy, such as in an apartment building or office building, any corridors serving the day-care home shall be provided with a smoke detection system in accordance with Section 9.6.  Single-station or multiple-station smoke alarms or smoke detectors shall be provided in all rooms used for sleeping in accordance with 9.6.2.10, other than as permitted by 17.6.3.4.4.  Approved existing battery-powered smoke alarms, rather than house electrical service-powered smoke alarms required by 17.6.3.4.3, shall be permitted where the facility has testing, maintenance, and battery replacement programs that ensure reliability of power to the smoke alarms.

<p>Extinguishing system operation</p>	<p>See 16.3.4.2 above. Also see 9.7.2.2 below. Also see 16.3.5 in NFPA 101 for extinguishing system requirements and 16.3.6 for additional extinguishing system provisions.</p>	<p>9.7.2.1</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.  Also see 16.3.5 in NFPA 101 for extinguishing system requirements and 16.3.6 for additional extinguishing system provisions.</p>	<p>See 17.3.4.2 above. Also see 9.7.2.2 below. Also see 17.3.5 in NFPA 101 for extinguishing system requirements and 17.3.6 for additional extinguishing system provisions.</p>
<p>FAS supervisory signal initiation</p>	<p>9.7.2.1</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.  Also see 16.3.5 in NFPA 101 for extinguishing system requirements and 16.3.6 for additional extinguishing system provisions.</p>	<p>9.7.2.1</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.  Also see 16.3.5 in NFPA 101 for extinguishing system requirements and 16.3.6 for additional extinguishing system provisions.</p>
<p>Occupant notification</p>	<p>Audible/visible</p>	<p>16.3.4.3.1</p>	<p>Occupant notification shall be in accordance with 9.6.3.</p>	<p>Occupant notification shall be in accordance with 9.6.3.</p>
<p>Positive alarm sequence</p>	<p>Positive alarm sequence</p>	<p>16.3.4.3.2</p>	<p>Positive alarm sequence shall be permitted in accordance with 9.6.3.4.</p>	<p>Positive alarm sequence shall be permitted in accordance with 9.6.3.4.</p>
<p>Presignal system</p>	<p>Not addressed.</p>	<p>Not addressed.</p>	<p>Not addressed.</p>	<p>Not addressed.</p>
<p>Voice announcements</p>	<p>Not specifically addressed; however, see 9.6.3.9.</p>	<p>Not specifically addressed; however, see 9.6.3.9.</p>	<p>Not specifically addressed; however, see 9.6.3.9.</p>	<p>Not specifically addressed; however, see 9.6.3.9.</p>
<p>Other provisions</p>	<p>16.3.4.3.3</p>	<p>Where occupant notification appliances are provided in all occupied rooms and corridors, the private operating mode as described in NFPA 72, National Fire Alarm Code, shall be permitted to be used in either or both of the following locations:</p>	<p>Where occupant notification appliances are provided in all occupied rooms and corridors, the private operating mode as described in NFPA 72, National Fire Alarm Code, shall be permitted to be used in either or both of the following locations:</p>	<p>Where occupant notification appliances are provided in all occupied rooms and corridors, the private operating mode as described in NFPA 72, National Fire Alarm Code, shall be permitted to be used in either or both of the following locations:</p>

(continues)

		New Day Care		Existing Day Care	
		101 Ref.	Requirement	101 Ref.	Requirement
Occupant notification (continued)	Other provisions (continued)		(1) Occupied rooms (2) Corridors		(1) Occupied rooms (2) Corridors
	Emergency forces notification	16.3.4.4	Fire department notification shall be accomplished in accordance with 9.6.4.	17.3.4.4	Fire department notification, other than for day-care occupancies with not more than 100 clients, shall be accomplished in accordance with 9.6.4.
Annunciator		9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, or the fire department. Such connection shall be in accordance with 9.6.1.3. Also see 16.3.5 in NFPA 101 for extinguishing system requirements and 16.3.6 for additional extinguishing system provisions.	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, or the fire department. Such connection shall be in accordance with 9.6.1.3. Also see 17.3.5 in NFPA 101 for extinguishing system requirements and 17.3.6 for additional extinguishing system provisions.
Emergency control (fire safety) functions			Not addressed. See separate summary table for emergency control (fire safety) functions, where applicable.		Not addressed. See separate summary table for emergency control (fire safety) functions, where applicable.

**Health Care Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**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).

**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.

**3.3.178.7\* Health Care Occupancy.** An occupancy used to provide medical or other treatment or care simultaneously to four or more patients on an inpatient basis, where such patients are mostly incapable of self-preservation due to age, physical or mental disability, or because of security measures not under the occupants' control.

tion due to age, physical or mental disability, or because of security measures not under the occupants' control.

**3.3.131.2 Nursing Home.** A building or portion of a building used on a 24-hour basis for the housing and nursing care of four or more persons who, because of mental or physical incapacity, might be unable to provide for their own needs and safety without the assistance of another person.

**3.3.82.2\* Limited Care Facility.** A building or portion of a building used on a 24-hour basis for the housing of four or more persons who are incapable of self-preservation because of age; physical limitations due to accident or illness; or limitations such as mental retardation/developmental disability, mental illness, or chemical dependency.

**Health Care Occupancies**

	New Health Care		Existing Health Care	
	101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system	18.3.4.1	Health care occupancies shall be provided with a fire alarm system in accordance with Section 9.6.	19.3.4.1	Health care occupancies shall be provided with a fire alarm system in accordance with Section 9.6.
Fire alarm signal initiation	18.3.4.2.1	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 18.3.4.2.2.	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.
	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.	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 9.6.2.54 are not exceeded.

(continues)

		Health Care Occupancies Continued	
		New Health Care	Existing Health Care
	101 Ref.	Requirement	101 Ref.
Fire alarm signal initiation (continued)		Requirement	Requirement
	Manual initiation (continued)		19.3.4.2.3 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. Detectors required by 19.7.5.3 and 19.7.5.5 shall not be required to initiate the fire alarm system.
Automatic detection	18.3.4.5.1	Detection systems, where required, shall be in accordance with Section 9.6. See 18.3.6.1 in NFPA 101 for detection in spaces open to corridors. Also see 18.3.4.2.1 above.	19.3.4.5.2 See 19.3.6.1 in NFPA 101 for detection in spaces open to corridors. Also see 19.3.4.2.1 and 19.3.4.2.4 above. Also see 19.7.5.3 and 19.7.5.5 in NFPA 101 for nursing home provisions.
	18.3.4.5.2		
	18.3.4.5.3	<b>Nursing Homes</b> 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 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.	<b>Limited Care Facility</b> 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 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 19.3.5.76 shall be permitted.
Extinguishing system operation		See 18.3.4.2.1 above. Also see 9.7.2.2 below. Also see 18.3.5 in NFPA 101 for extinguishing system requirements and 18.3.6 for additional extinguishing system provisions.	See 19.3.4.2.3 above. Also see 19.3.4.2.1 above. Also see 9.7.2.2 below. Also see 19.3.5 in NFPA 101 for extinguishing system requirements and 19.3.6 for additional extinguishing system provisions.

<p>FAS supervisory signal initiation</p>	<p>Extinguishing system supervision</p>	<p>9.7.2.1</p>	<p>9.7.2.1</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.  Also see 19.3.5 in NFPA 101 for extinguishing system requirements and 19.3.6 for additional extinguishing system provisions.</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.  Also see 18.3.5 in NFPA 101 for extinguishing system requirements and 18.3.6 for additional extinguishing system provisions.</p>
<p>Occupant notification</p>	<p>Audible/visible</p>	<p>18.3.4.3.1</p>	<p>19.3.4.3.1</p>	<p>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.</p>	<p>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.</p>
<p>Positive alarm sequence</p>	<p>Positive alarm sequence</p>	<p>18.3.4.3</p>	<p>19.3.4.3</p>	<p>Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.</p>	<p>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).</p>
<p>Presignal system</p>	<p>Presignal system</p>	<p></p>	<p></p>	<p>Not addressed.</p>	<p>Not addressed.</p>
<p>Voice announcements</p>	<p>Voice announcements</p>	<p></p>	<p></p>	<p>Not specifically addressed; however, see 9.6.3.9.</p>	<p>Not specifically addressed; however, see 9.6.3.9.</p>
<p>Other provisions</p>	<p>Other provisions</p>	<p></p>	<p></p>	<p></p>	<p></p>
<p style="text-align: right;">(continues)</p>					

		New Health Care		Existing Health Care	
		101 Ref.	Requirement	101 Ref.	Requirement
Emergency forces notification		18.3.4.3.2.1	Fire department notification shall be accomplished in accordance with 9.6.4.	19.3.4.3.2.1	Fire department notification shall be accomplished in accordance with 9.6.4.
		9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.	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.  Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.
Annunciator			Also see 18.3.5 in NFPA 101 for extinguishing system requirements and in 18.3.6 for additional extinguishing system provisions.		Also see 19.3.5 in NFPA 101 for extinguishing system requirements and 19.3.6 for additional extinguishing system provisions.
		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.		Not addressed.
		18.3.4.3.3.2	The alarm zone shall be permitted to coincide with the permitted area for smoke compartments.		
Emergency control (fire safety) functions		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	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.)  Also see separate summary table for emergency control (fire safety) functions, where applicable.	19.3.4.4	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.)  Also see separate summary table for emergency control (fire safety) functions, where applicable.

**Ambulatory Health Care Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**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).

**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.

**3.3.178.1\*** **Ambulatory Health Care Occupancy.** An occupancy used to provide services or treatment simultaneously to four or more patients that

provides, on an outpatient basis, one or more of the following: (1) treatment for patients that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others; (2) anesthesia that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others; (3) emergency or urgent care for patients who, due to the nature of their injury or illness, are incapable of taking action for self-preservation under emergency conditions without the assistance of others.

**Ambulatory Health Care Occupancies**

		New Ambulatory Health Care		Existing Ambulatory Health Care	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system		20.3.4.1	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.	21.3.4.1	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.
Fire alarm signal initiation	Manual initiation	20.3.4.2	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.	21.3.4.2	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.
	Automatic detection		See 20.3.4.2 above. Also see 20.3.7.2(1) in NFPA 101.		See 21.3.4.2 above. Also see 21.3.7.2(1) in NFPA 101.
	Extinguishing system operation		See 20.3.4.2 above. Also see 9.7.2.2 below. Also see 20.3.5 in NFPA 101 for extinguishing system requirements and 20.3.6 and 20.3.7 for additional extinguishing system provisions.		See 21.3.4.2 above. Also see 9.7.2.2 below. Also see 21.3.5 in NFPA 101 for extinguishing system requirements and 21.3.7 for additional extinguishing system provisions.
FAS supervisory signal initiation		9.7.2.1	Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the	9.7.2.1	Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a

(continues)

		New Ambulatory Health Care		Existing Ambulatory Health Care	
		101 Ref.	Requirement	101 Ref.	Requirement
FAS supervisory signal initiation (continued)	Extinguishing system supervision (continued)		satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility. <i>Also see 20.3.5 in NFPA 101 for extinguishing system requirements and 20.3.6 and 20.3.7 for additional extinguishing system provisions.</i>		condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility. <i>Also see 21.3.5 in NFPA 101 for extinguishing system requirements and 21.3.7 for additional extinguishing system provisions.</i>
	FAS supervisory signal initiation (continued)				
Occupant notification	Audible/visible	20.3.4.3.1	Occupant notification shall be accomplished automatically, without delay, in accordance with 9.6.3 upon operation of any fire alarm activating device.	21.3.4.3.1	Occupant notification shall be accomplished automatically, without delay, in accordance with 9.6.3 upon operation of any fire alarm activating device.
	Positive alarm sequence	20.3.4.3	Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.	21.3.4.3	Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
	Presignal system		Not addressed		Not addressed.
	Voice announcements		Not specifically addressed; however, see 9.6.3.9.		Not specifically addressed; however, see 9.6.3.9.
	Other provisions				
Emergency forces notification		20.3.4.3.2.1	Fire department notification shall be accomplished in accordance with 9.6.4.	21.3.4.3.2.1	Fire department notification shall be accomplished in accordance with 9.6.4.
		9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.	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.

<p>Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.</p> <p>Also see 21.3.5 in NFPA 101 for extinguishing system requirements and 21.3.7 for additional extinguishing system provisions.</p>	<p>9.7.2.2</p>	<p>Also see 20.3.5 in NFPA 101 for extinguishing system requirements and 20.3.6 and 20.3.7 for additional extinguishing system provisions.</p>	<p>Annunciator</p>
<p>Not addressed.</p>	<p>21.3.4.4</p>	<p>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.)</p> <p>Also see separate summary table for emergency control (fire safety) functions, where applicable.</p>	<p>Emergency control (fire safety) functions</p>

**Detention and Correctional Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**22.1.1.1.1** The requirements of this chapter shall apply to new buildings or portions thereof used as detention or correctional occupancies (*see 1.3.1*).

**23.1.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as detention or correctional occupancies.

**3.3.178.5\* Detention and Correctional Occupancy.** An occupancy used to house one or more persons under varied degrees of restraint or security where such occupants are mostly incapable of self-preservation because of security measures not under the occupants' control.

The following occupancy classifications are common to 22.1.4 and 23.1.4:

**Use Condition I — Free Egress.** Use Condition I shall be defined as a condition under which free movement is allowed from sleeping areas and other spaces where access or occupancy is permitted to the exterior via means of egress that meet the requirements of the Code.

**Use Condition II — Zoned Egress.** Use Condition II shall be defined as a condition under which free movement is allowed from sleeping areas and

any other occupied smoke compartment to one or more other smoke compartments.

**Use Condition III — Zoned Impeded Egress.** Use Condition III shall be defined as a condition under which free movement is allowed within individual smoke compartments, such as within a residential unit comprised of individual sleeping rooms and a group activity space, with egress impeded by remote-controlled release of means of egress from such a smoke compartment to another smoke compartment.

**Use Condition IV — Impeded Egress.** Use Condition IV shall be defined as a condition under which free movement is restricted from an occupied space, and remote-controlled release is provided to allow movement from all sleeping rooms, activity spaces, and other occupied areas within the smoke compartment to another smoke compartment.

**Use Condition V — Contained.** Use Condition V shall be defined as a condition under which free movement is restricted from an occupied space, and staff-controlled manual release at each door is provided to allow movement from all sleeping rooms, activity spaces, and other occupied areas within the smoke compartment to another smoke compartment.

**Detention and Correctional Occupancies**

		New Detention and Correctional		Existing Detention and Correctional	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system	Manual initiation	22.3.4.1	Initiation of the required fire alarm system shall be provided with a fire alarm system in accordance with Section 9.6, except as modified by 22.3.4.2 through 22.3.4.4.3.	23.3.4.1	Initiation of the required fire alarm system shall be provided with a fire alarm system in accordance with Section 9.6, except as modified by 23.3.4.2 through 23.3.4.4.4.
	Fire alarm signal initiation	22.3.4.2.1	Initiation of the required fire alarm system shall be by manual means in accordance with 9.6.2, by means of any required detection devices or detection systems, and by means of waterflow alarm in the sprinkler system required by 22.3.5.2, unless otherwise permitted by the following: (1) Manual fire alarm boxes shall be permitted to be locked, provided that staff is present	23.3.4.2.1	Initiation of the required fire alarm system shall be by manual means in accordance with 9.6.2 and by means of any required detection devices or detection systems, unless otherwise permitted by the following: (1) Manual fire alarm boxes shall be permitted to be locked, provided that staff is present within the area when it is

<p>occupied and staff has keys readily available to unlock the boxes. (2) Manual fire alarm boxes shall be permitted to be located in a staff location, provided that both of the following criteria are met: (a) The staff location is attended when the building is occupied. (b) The staff attendant has direct supervision of the sleeping area.</p>		<p>within the area when it is occupied and staff has keys readily available to unlock the boxes. (2) Manual fire alarm boxes shall be permitted to be located in a staff location, provided that both of the following criteria are met: (a) The staff location is attended when the building is occupied. (b) The staff attendant has direct supervision of the sleeping area.</p>	
<p><b>Nonsprinklered Existing Building Renovations</b> Initiation of the fire alarm system required by 22.3.4.1 shall be by manual means in accordance with 9.6.2 and by means of any required detection devices or detection systems, unless otherwise permitted by the following: (1) Manual fire alarm boxes shall be permitted to be locked, provided that staff is present within the area when it is occupied and staff has keys readily available to unlock the boxes. (2) Manual fire alarm boxes shall be permitted to be located in a staff location, provided that both of the following criteria are met: (a) The staff location is attended when the building is occupied. (b) The staff attendant has direct supervision of the sleeping area.</p>	<p>22.4.4.9.1</p>	<p>Use of the provision of 9.6.1.8.1.3 shall be permitted only as an exemption to 9.6.1.8.1(2) and (3).</p>	<p>Automatic detection</p>
<p>Use of the provision of 9.6.1.8.1.3 shall be permitted only as an exemption to 9.6.1.8.1(2) and (3)</p>	<p>23.3.4.2.2</p>	<p>An approved automatic smoke detection system shall be in accordance with Section 9.6, as modified by 23.3.4.4.1 through 23.3.4.4.4, throughout all resident housing areas.</p>	
<p>Smoke detectors shall not be required in sleeping rooms with four or fewer occupants in Use Condition II or Use Condition III.</p>	<p>23.3.4.4.1</p>	<p>Smoke detectors shall not be required in sleeping rooms with four or fewer occupants.</p>	

(continues)



	<p>22.4.4.9.2.2, throughout all resident sleeping areas and adjacent day rooms, activity rooms, or contiguous common spaces.</p> <p>Smoke detectors shall not be required in sleeping rooms with four or fewer occupants in Use Condition II or Use Condition III.</p> <p>Other arrangements and positioning of smoke detectors shall be permitted to prevent damage or tampering, or for other purposes. Such arrangements shall be capable of detecting any fire, and the placement of detectors shall be such that the speed of detection is equivalent to that provided by the spacing and arrangements required by the installation standards referenced in Section 9.6. Detectors shall be permitted to be located in exhaust ducts from cells, behind grilles, or in other locations. The equivalent performance of the design, however, shall be acceptable to the authority having jurisdiction in accordance with the equivalency concepts specified in Section 1.4.</p> <p>Also see 2.2.4.4.9.1 (above).</p>	<p>See 9.7.2.2 below. Also see 23.3.5 in NFPA 101 for extinguishing system requirements and 23.3.7.4 and 23.4.1.1 for additional extinguishing system provisions.</p>
<p>22.4.4.9.2.1</p> <p>22.4.4.9.2.2</p>	<p>22.4.4.9.2.1, 22.3.4.2.2, and 22.4.4.9.1 above.</p> <p>Also see 9.7.2.2 below. Also see 22.3.5 NFPA 101 for extinguishing system requirements.</p>	<p>9.7.2.1</p>
<p>Extinguishing system operation</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves.</p>	<p>9.7.2.1</p>
<p>FAS supervisory signal initiation</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure</p>

(continues)

		<i>Detention and Correctional Occupancies Continued</i>	
		<i>New Detention and Correctional</i>	<i>Existing Detention and Correctional</i>
	<i>101 Ref.</i>	<i>Requirement</i>	<i>101 Ref.</i>
FAS supervisory signal initiation (continued)		Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility. Also see 22.3.5 in NFPA 101 for extinguishing system requirements.	
		Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility. Also see 23.3.5 in NFPA 101 for extinguishing system requirements and 23.3.7.4 and 23.4.1.1 for additional extinguishing system provisions.	
Occupant notification	22.3.4.3.1	Occupant notification shall be accomplished automatically in accordance with 9.6.3, and the following also shall apply: (1) A positive alarm sequence shall be permitted in accordance with 9.6.3.4. (2)* Any smoke detectors required by this chapter shall be permitted to be arranged to alarm at a constantly attended location only and shall not be required to accomplish general occupant notification.	23.3.4.3.1
		See 22.3.4.3.1(1) above.	See 23.3.4.3.1(1) above.
Positive alarm sequence		Not addressed.	Not addressed.
	Presignal system	Not specifically addressed; however, see 9.6.3.9.	Not specifically addressed; however, see 9.6.3.9.
Voice announcements		Fire department notification shall be accomplished in accordance with 9.6.4, unless otherwise permitted by the following: (1) A positive alarm sequence shall be permitted in accordance with 9.6.3.4. (2) Any smoke detectors required by this chapter shall not be required to transmit an alarm to the fire department. (3) This requirement shall not apply where	
	Other provisions		
Emergency forces notification	22.3.4.3.2.1	Fire department notification shall be accomplished in accordance with 9.6.4, unless otherwise permitted by the following: (1) A positive alarm sequence shall be permitted in accordance with 9.6.3.4. (2) Any smoke detectors required by this chapter shall not be required to transmit an alarm to the fire department. (3) This requirement shall not apply where	23.3.4.3.2.1

	<p>staff is provided at a constantly attended location that meets one of the following criteria:</p> <ul style="list-style-type: none"> <li>(a) It has the capability to promptly notify the fire department.</li> <li>(b) It has direct communication with a control room having direct access to the fire department.</li> </ul>	<p>22.3.4.3.2.2</p>	<p>Where the provision of 22.3.4.3.2.1(3) is utilized, the fire plan, as required by 22.7.1.3, shall include procedures for logging of alarms and immediate notification of the fire department.</p> <p>Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.</p> <p>Also see 22.3.5 in NFPA 101 for extinguishing system requirements.</p>	<p>23.3.4.3.2.2</p>	<p>staff is provided at a constantly attended location that meets one of the following criteria:</p> <ul style="list-style-type: none"> <li>(a) It has the capability to promptly notify the fire department.</li> <li>(b) It has direct communication with a control room having direct access to the fire department.</li> </ul> <p>Where the provision of 23.3.4.3.2.1(3) is utilized, the fire plan, as required by 23.7.1.3, shall include procedures for logging of alarms and immediate notification of the fire department.</p> <p>Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.</p> <p>Also see 23.3.5 in NFPA 101 for extinguishing system requirements and 23.3.7.4 and 23.4.1.1 for additional extinguishing system provisions.</p>
Annunciator	<p>staff is provided at a constantly attended location that meets one of the following criteria:</p> <ul style="list-style-type: none"> <li>(a) It has the capability to promptly notify the fire department.</li> <li>(b) It has direct communication with a control room having direct access to the fire department.</li> </ul>	<p>22.3.4.3.2.2</p>	<p>Where the provision of 22.3.4.3.2.1(3) is utilized, the fire plan, as required by 22.7.1.3, shall include procedures for logging of alarms and immediate notification of the fire department.</p> <p>Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.</p> <p>Also see 22.3.5 in NFPA 101 for extinguishing system requirements.</p>	<p>23.3.4.3.2.2</p>	<p>staff is provided at a constantly attended location that meets one of the following criteria:</p> <ul style="list-style-type: none"> <li>(a) It has the capability to promptly notify the fire department.</li> <li>(b) It has direct communication with a control room having direct access to the fire department.</li> </ul> <p>Where the provision of 23.3.4.3.2.1(3) is utilized, the fire plan, as required by 23.7.1.3, shall include procedures for logging of alarms and immediate notification of the fire department.</p> <p>Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.</p> <p>Also see 23.3.5 in NFPA 101 for extinguishing system requirements and 23.3.7.4 and 23.4.1.1 for additional extinguishing system provisions.</p>
Emergency control (fire safety) functions	<p>Not addressed.</p>	<p>Not addressed.</p>	<p>Not addressed.</p>	<p>Not addressed.</p>	<p>Not addressed.</p>

### One- and Two-Family Dwellings

The following excerpts from *NFPA 101*, 2009 edition, are provided for reference:

**24.1.1.1** The requirements of this chapter shall apply to one- and two-family dwellings, which shall include those buildings containing not more than two dwelling units in which each dwelling unit is occupied by members of a single family with not more than three outsiders, if any, accommodated in rented rooms.

**24.1.1.2** The requirements of this chapter shall apply to new buildings and to existing or modified buildings according to the provisions of 1.3.1 of this *Code*.

**3.3.61 Dwelling Unit.** One or more rooms arranged for complete, independent housekeeping purposes with space for eating, living, and sleeping; facilities for cooking; and provisions for sanitation.

**3.3.61.1 One- and Two-Family Dwelling Unit.** A building that contains not more than two dwelling units with independent cooking and bathroom facilities.

**3.3.61.2 One-Family Dwelling Unit.** A building that consists solely of one dwelling unit with independent cooking and bathroom facilities.

**3.3.61.3 Two-Family Dwelling Unit.** A building that consists solely of two dwelling units with independent cooking and bathroom facilities.

The following excerpts from *NFPA 72*, 2010 edition, are provided for reference:

**3.3.95.2 Household Fire Alarm System.** A system of devices that uses a fire alarm control unit to produce an alarm signal in the household for the purpose of notifying the occupants of the presence of a fire so that they will evacuate the premises.

**3.3.100 Fire Warning Equipment.** Any detector, alarm, device, or material related to single- and multiple-station alarms or household fire alarm systems.

**3.3.149 Multiple Station Alarm.** A single station alarm capable of being interconnected to one or more additional alarms so that the actuation of one causes the appropriate alarm signal to operate in all interconnected alarms.

**3.3.245 Single Station Alarm.** A detector comprising an assembly that incorporates a sensor, control components, and an alarm notification appliance in one unit operated from a power source either located in the unit or obtained at the point of installation.

**3.3.251 Smoke Alarm.** A single or multiple station alarm responsive to smoke.

#### New and Existing One- and Two-Family Dwellings

		101 Ref.	Requirement
Fire warning equipment		24.3.4	Smoke alarms or a smoke detection system shall be provided in accordance with either 24.3.4.1 or 24.3.4.2, as modified by 24.3.4.3.
Fire alarm signal initiation	Manual initiation		Not addressed.
	Automatic detection	24.3.4.1	Smoke alarms shall be installed in accordance with 9.6.2.10 in the following locations: (1) All sleeping rooms (2) Outside of each separate sleeping area, in the immediate vicinity of the sleeping rooms (3) On each level of the dwelling unit, including basements
		24.3.4.2	Dwelling units shall be protected by an approved smoke detection system in accordance with Section 9.6 and equipped with an approved means of occupant notification.
		24.3.4.3	In existing one- and two-family dwellings, approved smoke alarms powered by batteries shall be permitted.
Extinguishing system operation			Not addressed.

*New and Existing One- and Two-Family Dwellings Continued*

		<i>101 Ref.</i>	<i>Requirement</i>
FAS supervisory signal initiation	Extinguishing system supervision		See 24.3.5.1 in NFPA 101 for extinguishing system requirements. (Supervision is not required.)
Occupant notification	Audible/Visible		See 24.3.4.2 above.
	Positive Alarm Sequence		Not addressed.
	Presignal system		Not addressed.
	Voice announcements		Not addressed.
	Other provisions		
Emergency forces notification			Not addressed.
Annunciator			Not addressed.
Emergency control (fire safety) functions			

**Lodging and Rooming Houses**

The following excerpts from *NFPA 101*, 2009 edition, are provided for reference:

**26.1.1.1\*** The requirements of this chapter shall apply to buildings that provide sleeping accommodations for 16 or fewer persons on either a transient or permanent basis, with or without meals, but without separate cooking facilities for individual occupants, except as provided in Chapter 24.

**26.1.1.2** The requirements of this chapter shall apply to new buildings and to existing or modified buildings according to the provisions of 1.3.1 of this *Code*.

**3.3.156 Lodging or Rooming House.** A building or portion thereof that does not qualify as a one- or two-family dwelling, that provides sleeping accommodations for a total of 16 or fewer people on a transient or permanent basis, without personal care services, with or without meals, but without separate cooking facilities for individual occupants.

The following excerpts from *NFPA 72*, 2010 edition, are provided for reference:

**3.3.100 Fire Warning Equipment.** Any detector, alarm, device, or material related to single- and multiple-station alarms or household fire alarm systems.

**3.3.149 Multiple Station Alarm.** A single station alarm capable of being interconnected to one or more additional alarms so that the actuation of one causes the appropriate alarm signal to operate in all interconnected alarms.

**3.3.245 Single Station Alarm.** A detector comprising an assembly that incorporates a sensor, control components, and an alarm notification appliance in one unit operated from a power source either located in the unit or obtained at the point of installation.

**3.3.251 Smoke Alarm.** A single or multiple station alarm responsive to smoke.

*New and Existing Lodging and Rooming Houses*

		101 Ref.	Requirement
Fire alarm system/fire warning equipment		26.3.4.1.1	Lodging and rooming houses, other than those meeting 26.3.4.1.2, shall be provided with a fire alarm system in accordance with Section 9.6.
		26.3.4.1.2	A fire alarm system in accordance with Section 9.6 shall not be required in existing lodging and rooming houses that have an existing smoke detection system meeting or exceeding the requirements of 26.3.4.5.1 where that detection system includes not less than one manual fire alarm box per floor arranged to initiate the smoke detection alarm.
Fire alarm signal initiation	Manual initiation	26.3.4.2	Initiation of the required fire alarm system shall be by manual means in accordance with 9.6.2, or by alarm initiation in accordance with 9.6.2.1(3) in buildings protected throughout by an approved automatic sprinkler system in accordance with 26.3.6.
	Automatic detection	26.3.4.5.1	Approved single-station smoke alarms, other than existing smoke alarms meeting 26.3.4.5.3, shall be installed in accordance with 9.6.2.10 in every sleeping room.
		26.3.4.5.2	In other than existing buildings, the smoke alarms required by 26.3.4.5.1 shall be interconnected in accordance with 9.6.2.10.3.
		26.3.4.5.3	Existing battery-powered smoke alarms, rather than house electric-powered smoke alarms, shall be permitted where the facility has demonstrated to the authority having jurisdiction that the testing, maintenance, and battery replacement programs will ensure reliability of power to the smoke alarms.
	Extinguishing system operation		See 26.3.4.2 above. Also see 26.3.6 in <i>NFPA 101</i> for extinguishing system requirements.

*New and Existing Lodging and Rooming Houses Continued*

		<i>101 Ref.</i>	<i>Requirement</i>
FAS supervisory signal initiation	Extinguishing system supervision		See 26.3.6 in NFPA 101 for extinguishing system requirements. (Supervision is not required.)
Occupant notification	Audible/visible	26.3.4.3	Occupant notification shall be provided automatically in accordance with 9.6.3, as modified by 26.3.4.3.1 and 26.3.4.3.2.
		26.3.4.3.1	Visible signals for the hearing impaired shall not be required where the proprietor resides in the building and there are five or fewer rooms for rent.
		26.3.4.3.2	Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
	Positive alarm sequence		See 26.3.4.3.2 above.
	Presignal system		Not addressed.
	Voice announcements		Not specifically addressed; however, see 9.6.3.9.
	Other provisions		
Emergency forces notification			Not addressed
Annunciator			Not addressed
Emergency control (fire safety) functions			See separate summary table for emergency control (fire safety) functions, where applicable.

**Hotels and Dormitories**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**28.1.1.1** The requirements of this chapter shall apply to new buildings or portions thereof used as hotel or dormitory occupancies (*see 1.3.1*).

**29.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as hotel or dormitory occupancies, unless meeting the requirement of 29.1.1.2.

**3.3.134\* Hotel.** A building or groups of buildings under the same management in which there are sleeping accommodations for more than 16 persons and primarily used by transients for lodging with or without meals.

**3.3.59\* Dormitory.** A building or a space in a building in which group sleeping accommodations are provided for more than 16 persons who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, but without individual cooking facilities.

The following excerpts from NFPA 72, 2010 edition, are provided for reference:

**3.3.100 Fire Warning Equipment.** Any detector, alarm, device, or material related to single- and multiple-station alarms or household fire alarm systems.

**3.3.149 Multiple Station Alarm.** A single station alarm capable of being interconnected to one or more additional alarms so that the actuation of one causes the appropriate alarm signal to operate in all interconnected alarms.

**3.3.245 Single Station Alarm.** A detector comprising an assembly that incorporates a sensor, control components, and an alarm notification appliance in one unit operated from a power source either located in the unit or obtained at the point of installation.

**3.3.251 Smoke Alarm.** A single or multiple station alarm responsive to smoke.

**Hotels and Dormitories**

		New Hotels and Dormitories		Existing Hotels and Dormitories	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system/fire warning equipment	Manual initiation	28.3.4.1	A fire alarm system in accordance with Section 9.6, except as modified by 28.3.4.2 through 28.3.4.6, shall be provided.	29.3.4.1	A fire alarm system in accordance with Section 9.6, except as modified by 29.3.4.2 through 29.3.4.6, shall be provided in buildings other than those where each guest room has exterior exit access in accordance with 7.5.3, and the building does not exceed three stories in height.
	Fire alarm signal initiation	28.3.4.2	The required fire alarm system shall be initiated by each of the following: (1) Manual means in accordance with 9.6.2 (2) Manual fire alarm box located at the hotel desk or other convenient central control point under continuous supervision by responsible employees (3) Required automatic sprinkler system	29.3.4.2	The required fire alarm system shall be initiated by each of the following: (1) Manual means in accordance with 9.6.2, unless there are other effective means to activate the fire alarm system, such as complete automatic sprinkler or automatic detection systems, with manual fire alarm box in accordance with 29.3.4.2(2) required

		<p>(4) Required automatic detection system other than sleeping room smoke detectors</p>	<p>(2) Manual fire alarm box located at the hotel desk or other convenient central control point under continuous supervision by responsible employees                  (3) Required automatic sprinkler system                  (4) Required automatic detection system other than sleeping room smoke detectors</p>
Automatic detection	28.3.4.4	<p>A corridor smoke detection system in accordance with Section 9.6 shall be provided in buildings other than those protected throughout by an approved, supervised automatic sprinkler system in accordance with 28.3.5.3.</p>	<p>An approved single-station smoke alarm shall be installed in accordance with 9.6.2.10 in every guest room and every living area and sleeping room within a guest suite.</p>
Extinguishing system operation	28.3.4.5	<p>Also see 28.3.4.2(4) above.</p>	<p>The smoke alarms shall not be required to be interconnected.</p>
FAS supervisory signal initiation	9.7.2.1	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or</p>	<p>Single-station smoke alarms without a secondary (standby) power source shall be permitted.</p> <p>Also see 29.3.4.2(4) above.</p> <p>See 29.3.4.2(3) above.                  Also see 9.7.2.2 below.                  Also see 29.3.5 in NFPA 101 for extinguishing system requirements and 29.3.6 and 29.3.7 for additional extinguishing system provisions.</p>
	9.7.2.1	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or</p>	<p>Also see 29.3.4.2(3) above.                  Also see 9.7.2.2 below.                  Also see 29.3.5 in NFPA 101 for extinguishing system requirements and 29.3.6 and 29.3.7 for additional extinguishing system provisions.</p>

(continues)

		Hotels and Dormitories Continued		New Hotels and Dormitories		Existing Hotels and Dormitories	
		101 Ref.	Requirement	101 Ref.	Requirement	101 Ref.	Requirement
FAS supervisory signal initiation (continued)	Extinguishing system supervision (continued)		at an approved, remotely located receiving facility. Also see 28.3.4.2(3) above. Also see 28.3.5 in NFPA 101 for extinguishing system requirements and 28.3.6 and 28.3.7 for additional extinguishing system provisions.		at an approved, remotely located receiving facility. Also see 29.3.4.2(3) above. Also see 29.3.5 in NFPA 101 for extinguishing system requirements and 29.3.6 and 29.3.7 for additional extinguishing system provisions.		at an approved, remotely located receiving facility. Also see 29.3.4.2(3) above. Also see 29.3.5 in NFPA 101 for extinguishing system requirements and 29.3.6 and 29.3.7 for additional extinguishing system provisions.
	Occupant notification	28.3.4.3.1 28.3.4.3.2 28.3.4.3.3 28.3.4.3.4	Occupant notification shall be provided automatically in accordance with 9.6.3. Positive alarm sequence in accordance with 9.6.3.4 shall be permitted. Guest rooms and guest suites specifically required and equipped to accommodate hearing-impaired individuals shall be provided with a visible notification appliance. In occupiable areas, other than guest rooms and guest suites, visible notification appliances shall be provided.	29.3.4.3.1 29.3.4.3.2	Occupant notification shall be provided automatically in accordance with 9.6.3. Positive alarm sequence in accordance with 9.6.3.4, and a presignal system in accordance with 9.6.3.3, shall be permitted.		Occupant notification shall be provided automatically in accordance with 9.6.3. Positive alarm sequence in accordance with 9.6.3.4, and a presignal system in accordance with 9.6.3.3, shall be permitted.
Emergency forces notification	Positive alarm sequence		See 28.3.4.3.2 above.		See 28.3.4.3.2 above.		See 29.3.4.3.2 above.
	Presignal system		Not addressed.		Not addressed.		See 29.3.4.3.2 above.
	Voice announcements		Not specifically addressed; however, see 9.6.3.9.		Not specifically addressed; however, see 9.6.3.9.		Not specifically addressed; however, see 9.6.3.9.
	Other provisions						
Emergency forces notification		28.3.4.3.6	Emergency forces notification shall be provided in accordance with 9.6.4.	29.3.4.3.6	Provisions shall be made for the immediate notification of the public fire department by telephone or other means in case of fire, and, where there is no public fire department, notification shall be made to the private fire brigade.		Provisions shall be made for the immediate notification of the public fire department by telephone or other means in case of fire, and, where there is no public fire department, notification shall be made to the private fire brigade.
		9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire		Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire

<p>Annunciator</p>	<p>28.3.4.3.5</p>	<p>department: Such connection shall be in accordance with 9.6.1.3. Also see 28.3.5 in NFPA 101 for extinguishing system requirements and 28.3.6 and 28.3.7 for additional extinguishing system provisions.</p> <p>Annunciation and annunciation zoning in accordance with 9.6.7 shall be provided in buildings three or more stories in height or having more than 50 guest rooms or guest suites. Annunciation shall be provided at a location readily accessible from the primary point of entry for emergency response personnel.</p>	<p>department: Such connection shall be in accordance with 9.6.1.3. Also see 29.3.5 in NFPA 101 for extinguishing system requirements and 29.3.6 and 29.3.7 for additional extinguishing system provisions.</p> <p>Not addressed.</p>
<p>Emergency control (fire safety) functions</p>		<p>See separate summary table for emergency control (fire safety) functions, where applicable.</p>	<p>See separate summary table for emergency control (fire safety) functions, where applicable.</p>

**Apartment Buildings**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**30.1.1.1** The requirements of this chapter shall apply to new buildings or portions thereof used as apartment occupancies (*see 1.3.1*).

**31.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as apartment occupancies. In addition, the building shall meet the requirements of one of the following options:

- (1) Option 1, buildings without fire suppression or detection systems
- (2) Option 2, buildings provided with a complete approved automatic fire detection and notification system in accordance with 31.3.4.4
- (3) Option 3, buildings provided with approved automatic sprinkler protection in selected areas, as described in 31.3.5.9
- (4) Option 4, buildings protected throughout by an approved automatic sprinkler system

**3.3.32.3 Apartment Building.** A building or portion thereof containing three or more dwelling units with independent cooking and bathroom facilities.

The following excerpts from NFPA 72, 2010 edition, are provided for reference:

**3.3.100 Fire Warning Equipment.** Any detector, alarm, device, or material related to single- and multiple-station alarms or household fire alarm systems.

**3.3.149 Multiple Station Alarm.** A single station alarm capable of being interconnected to one or more additional alarms so that the actuation of one causes the appropriate alarm signal to operate in all interconnected alarms.

**3.3.245 Single Station Alarm.** A detector comprising an assembly that incorporates a sensor, control components, and an alarm notification appliance in one unit operated from a power source either located in the unit or obtained at the point of installation.

**3.3.251 Smoke Alarm.** A single or multiple station alarm responsive to smoke.

**Apartment Buildings**

	New Apartment Buildings		Existing Apartment Buildings	
	101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system/fire warning equipment	30.3.4.1.1  30.3.4.1.2	Apartment buildings four or more stories in height or with more than 11 dwelling units, other than those meeting the requirements of 30.3.4.1.2, shall be provided with a fire alarm system in accordance with Section 9.6, except as modified by 30.3.4.2 through 30.3.4.6.  A fire alarm system shall not be required in buildings where each dwelling unit is separated from other contiguous dwelling units by fire barriers ( <i>see Section 8.3</i> ) having a minimum 1-hour fire resistance rating, and where each dwelling unit has either its own independent exit or its own independent stairway or ramp discharging at the finished ground level.	31.3.4.1.1  31.3.4.1.2	Apartment buildings four or more stories in height or with more than 11 dwelling units, other than those meeting 31.3.4.1.2, shall be provided with a fire alarm system in accordance with Section 9.6, except as modified by 31.3.4.2 through 31.3.4.6.  A fire alarm system shall not be required where each dwelling unit is separated from other contiguous dwelling units by fire barriers ( <i>see Section 8.3</i> ) having a minimum 1-hour fire resistance rating, and where each dwelling unit has either its own independent exit or its own independent stairway or ramp discharging at the finished ground level.

Fire alarm signal initiation	Manual initiation	30.3.4.2.1	Initiation of the required fire alarm system shall be by manual means in accordance with 9.6.2, unless the building complies with 30.3.4.2.2.	31.3.4.2.1	Initiation of the required fire alarm system shall be by manual means in accordance with 9.6.2, unless the building complies with 31.3.4.2.2.
		30.3.4.2.2	Initiation of the required fire alarm system by manual means shall not be required in buildings four or fewer stories in height, containing not more than 16 dwelling units, and protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 30.3.5.1.	31.3.4.2.2	Initiation of the required fire alarm system by manual means shall not be required in buildings four or fewer stories in height, containing not more than 16 dwelling units, and protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 31.3.5.3.
	Automatic detection			31.3.4.2.3	In buildings using Option 2, the required fire alarm system shall be initiated by the automatic fire detection system in addition to the manual initiation means of 31.3.4.2.1.
				31.3.4.4.1	In buildings using Option 2, a complete automatic fire detection system in accordance with 9.6.1.3 and 31.3.4.4.2 shall be required.
				31.3.4.4.2	Automatic fire detection devices shall be installed as follows: (1) Smoke detectors shall be installed in all common areas and workspaces outside the living unit, such as exit stairs, egress corridors, lobbies, storage rooms, equipment rooms, and other tenantless spaces in environments that are suitable for proper smoke detector operation. (2) Heat detectors shall be located within each room of the living unit.
		30.3.4.5	<b>Smoke Alarms</b> Smoke alarms shall be installed in accordance with 9.6.2.10 in every sleeping area, outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit, including basements.	31.3.4.5.1	<b>Smoke Alarms</b> In buildings other than those equipped throughout with an existing, complete automatic smoke detection system, smoke alarms shall be installed in accordance with 9.6.2.10, as modified by 31.3.4.5.2, outside every sleeping area in the immediate vicinity of the bedrooms and on all levels of the dwelling unit, including basements.
				31.3.4.5.2	Smoke alarms required by 31.3.4.5.1 shall not be required to be provided with a secondary (standby) power source.

(continues)

		New Apartment Buildings		Existing Apartment Buildings	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm signal initiation (continued)	Automatic detection (continued)	31.3.4.5.3	In buildings other than those equipped throughout with an existing, complete automatic smoke detection system or a complete, supervised automatic sprinkler system in accordance with 31.3.5, smoke alarms shall be installed in every sleeping area in accordance with 9.6.2.10, as modified by 31.3.4.5.4.	31.3.4.5.4	Smoke alarms required by 31.3.4.5.3 shall be permitted to be battery powered.
	Extinguishing system operation	30.3.4.2.3	In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 30.3.5, required fire alarm systems shall be initiated upon operation of the automatic sprinkler system.  Also see 30.3.4.2.2 above. Also see 9.7.2.2 below. Also see 30.3.5 in NFPA 101 for extinguishing system requirements and 30.3.6, and 30.3.7 for additional extinguishing system provisions.	31.3.4.2.4  31.3.4.2.5	In buildings using Option 3, the required fire alarm system shall be initiated upon operation of the automatic sprinkler system in addition to the manual initiation means of 31.3.4.2.1.  In buildings using Option 4, the required fire alarm system shall be initiated upon operation of the automatic sprinkler system in addition to the manual initiation means of 31.3.4.2.1.  Also see 31.3.4.2.2 above. Also see 9.7.2.2 below. Also see 31.3.5 in NFPA 101 for extinguishing system requirements and 31.3.6 for additional extinguishing system provisions.
FAS supervisory signal initiation	Extinguishing system supervision	9.7.2.1	Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended	9.7.2.1	Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected

<p>building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility. Also see 31.3.4.2.2 above. Also see 9.7.2.2 below. Also see 31.3.5 in NFPA 101 for extinguishing system requirements and 31.3.6 for additional extinguishing system provisions.</p>		<p>by qualified personnel or at an approved, remotely located receiving facility. Also see 30.3.4.2.2 above. Also see 9.7.2.2 below. Also see 30.3.5 in NFPA 101 for extinguishing system requirements and 30.3.6 and 30.3.7 for additional extinguishing system provisions.</p>	
<p>Occupant notification shall be provided automatically in accordance with Section 9.6, and the following shall also apply: (1) Visible signals shall be installed in units designed for the hearing impaired. (2) Positive alarm sequence in accordance with 9.6.3.4 shall be permitted. (3) Existing approved presignal systems shall be permitted in accordance with 9.6.3.3. See 31.3.4.3.1(2) above.</p>	31.3.4.3.1	<p>Occupant notification shall be provided automatically in accordance with Section 9.6, and the following shall also apply: (1) Visible signals shall be installed in units designed for the hearing impaired. (2) Positive alarm sequence in accordance with 9.6.3.4 shall be permitted. See 30.3.4.3.1(2) above.</p>	
<p>Positive alarm sequence</p>		<p>Not addressed.</p>	
<p>Presignal system</p>		<p>Not specifically addressed; however, see 9.6.3.9.</p>	
<p>Voice announcements</p>		<p>Not specifically addressed; however, see 9.6.3.9.</p>	
<p>Other provisions</p>			
<p>Emergency forces notification</p>	31.3.4.3.5 9.7.2.2	<p>Fire department notification shall be accomplished in accordance with 9.6.4. Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3. Also see 30.3.5 in NFPA 101 for extinguishing system requirements and in 30.3.6, and 30.3.7 for additional extinguishing system provisions.</p>	<p>Fire department notification shall be accomplished in accordance with 9.6.4. Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3. Also see 31.3.5 in NFPA 101 for extinguishing system requirements and in 31.3.6 for additional extinguishing system provisions.</p>
<p>Annunciator</p>	31.3.4.3.2	<p>Annunciation, and annunciation zoning, in accordance with 9.6.7 shall be provided, unless the building complies with either</p>	<p>An annunciator panel, whose location shall be approved by the authority having jurisdiction, connected with the required fire alarm system (continues)</p>

		<i>Apartment Buildings Continued</i>	
		<i>New Apartment Buildings</i>	<i>Existing Apartment Buildings</i>
	<i>101 Ref.</i>	<i>Requirement</i>	<i>101 Ref.</i>
Annunciator (continued)		30.3.4.3.3 or 30.3.4.3.4. Annunciation shall be provided at a location readily accessible from the primary point of entry for emergency response personnel.	
	30.3.4.3.3	Annunciation, and annunciation zoning, shall not be required in buildings two or fewer stories in height and having not more than 50 dwelling units.	31.3.4.3.3
	30.3.4.3.4	Annunciation, and annunciation zoning, shall not be required in buildings four or fewer stories in height containing not more than 16 dwelling units and protected throughout by an approved, supervised automatic sprinkler system installed in accordance with 30.3.5.1.	31.3.4.3.4
Emergency control (fire safety) functions		See separate summary table for emergency control (fire safety) functions, where applicable.	See separate summary table for emergency control (fire safety) functions, where applicable.

**Residential Board and Care Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**32.1.1.1 General.** The requirements of this chapter shall apply to new buildings or portions thereof used as residential board and care occupancies (see 1.3.1).

**33.1.1.1 General.** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as residential board and care occupancies.

**3.3.178.12\* Residential Board and Care Occupancy.** An occupancy used for lodging and boarding of four or more residents, not related by blood or marriage to the owners or operators, for the purpose of providing personal care services.

**Small Facilities.** Residential board and care occupancies providing sleeping accommodations for not more than 16 residents. Reference 32.1.1.3(2) and 33.1.1.3(2).

**Large Facilities.** Residential board and care occupancies providing sleeping accommodations for more than 16 residents. Reference 32.1.1.3(3) and 33.1.1.3(3).

The following excerpts from NFPA 72, 2010 edition, are provided for reference:

**3.3.100 Fire Warning Equipment.** Any detector, alarm, device, or material related to single- and multiple-station alarms or household fire alarm systems.

**3.3.149 Multiple Station Alarm.** A single station alarm capable of being interconnected to one or more additional alarms so that the actuation of one causes the appropriate alarm signal to operate in all interconnected alarms.

**3.3.245 Single Station Alarm.** A detector comprising an assembly that incorporates a sensor, control components, and an alarm notification appliance in one unit operated from a power source either located in the unit or obtained at the point of installation.

**3.3.251 Smoke Alarm.** A single or multiple station alarm responsive to smoke.

**Residential Board and Care Occupancies**

	New Residential Board and Care		Existing Residential Board and Care	
	101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system/fire warning equipment	32.2.3.4.1	<p><b>Small Facility</b></p> <p>A manual fire alarm system shall be provided in accordance with Section 9.6.</p>	33.2.3.4.1	<p><b>Small Facility</b></p> <p>A manual fire alarm system shall be provided in accordance with Section 9.6, unless the provisions of 33.2.3.4.1.1 or 33.2.3.4.1.2 are met.</p> <p>33.2.3.4.1.1</p> <p>A fire alarm system shall not be required where interconnected smoke alarms complying with 33.2.3.4.3 and not less than one manual fire alarm box per floor arranged to continuously sound the smoke detector alarms are provided.</p>

(continues)

		Residential Board and Care Occupancies Continued	
		New Residential Board and Care	Existing Residential Board and Care
	101 Ref.	Requirement	101 Ref.
Fire alarm system/fire warning equipment (continued)			Other manually activated continuously sounding alarms acceptable to the authority having jurisdiction shall be permitted in lieu of a fire alarm system.
			<b>Large Facility</b> A fire alarm system in accordance with Section 9.6 shall be provided, unless each sleeping room has exterior exit access in accordance with 7.5.3, and the building is not more than three stories in height.
Fire alarm signal initiation		<b>Large Facility</b> A fire alarm system shall be provided in accordance with Section 9.6.	<b>Large Facility</b> A fire alarm system shall be provided in accordance with 9.6.2, 10, unless otherwise indicated in 33.2.3.4.3.6 and 33.2.3.4.3.7.
		<b>Small Facility</b> See 32.2.3.4.1 above.	<b>Small Facility</b> See 33.2.3.4.1 above.
Manual initiation		<b>Large Facility</b> The required fire alarm system shall be initiated by all of the following: (1) Manual means in accordance with 9.6.2 (2) Manual fire alarm box located at a convenient central control point under continuous supervision of responsible employees (3) Required automatic sprinkler system (4) Required detection system	<b>Large Facility</b> The required fire alarm system shall be initiated by all of the following means: (1) Manual means in accordance with 9.6.2, unless there are other effective means (such as a complete automatic sprinkler or automatic detection system) for notification of fire as required (2) Manual fire alarm box located at a convenient central control point under continuous supervision of responsible employees (3) Automatic sprinkler system, other than those not required by another section of this Code (4) Required detection system, other than sleeping room smoke alarms
		<b>Small Facility</b> See 32.2.3.4.1 above.	<b>Small Facility</b> See 33.2.3.4.1 above.
Automatic detection		<b>Small Facility</b> Approved smoke alarms shall be provided in accordance with 9.6.2.10.	<b>Small Facility</b> Approved smoke alarms shall be provided in accordance with 9.6.2.10, unless otherwise indicated in 33.2.3.4.3.6 and 33.2.3.4.3.7.
		<b>Small Facility</b> Smoke alarms shall be installed on all levels, including basements but excluding crawl spaces and unfinished attics.	<b>Small Facility</b> Smoke alarms shall be installed on all levels, including basements but excluding crawl spaces and unfinished attics.

32.2.3.4.3.3	Additional smoke alarms shall be installed in all living areas, as defined in 3.3.19.5.	32.2.3.4.3.3	Additional smoke alarms shall be installed for living rooms, dens, day rooms, and similar spaces.
32.2.3.4.3.4	Each sleeping room shall be provided with an approved smoke alarm in accordance with 9.6.2.10.	32.2.3.4.3.5	Smoke alarms shall be powered from the building electrical system and, when activated, shall initiate an alarm that is audible in all sleeping areas.
32.2.3.4.3.6		32.2.3.4.3.6	Smoke alarms in accordance with 33.2.3.4.3.1 shall not be required where buildings are protected throughout by an approved automatic sprinkler system, in accordance with 33.2.3.5, that uses quick-response or residential sprinklers, and are protected with approved smoke alarms installed in each sleeping room, in accordance with 9.6.2.10, that are powered by the building electrical system.
32.2.3.4.3.7		32.2.3.4.3.7	Smoke alarms in accordance with 33.2.3.4.3.1 shall not be required where buildings are protected throughout by an approved automatic sprinkler system, in accordance with 33.2.3.5, that uses quick-response or residential sprinklers, with existing battery-powered smoke alarms in each sleeping room, and where, in the opinion of the authority having jurisdiction, the facility has demonstrated that testing, maintenance, and a battery replacement program ensure the reliability of power to the smoke alarms.
32.3.3.4.7	<b>Large Facility</b> Approved smoke alarms shall be installed in accordance with 9.6.2.10 inside every sleeping room, outside every sleeping area in the immediate vicinity of the bedrooms, and on all levels within a resident unit.	32.3.3.4.7	<b>Large Facility</b> Smoke alarms shall be provided in accordance with 33.3.3.4.7.1, 33.3.3.4.7.2, or 33.3.3.4.7.3.
32.3.3.4.8.1	Corridors and spaces open to the corridors, other than those meeting the requirement of 32.3.3.4.8.3, shall be provided with smoke detectors that comply with NFPA 72, <i>National Fire Alarm Code</i> , and are arranged to initiate an alarm that is audible in all sleeping areas.	32.3.3.4.7.1	Each sleeping room shall be provided with an approved smoke alarm in accordance with 9.6.2.10 that is powered from the building electrical system.

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		<i>Residential Board and Care Occupancies Continued</i>	
		<i>New Residential Board and Care</i>	<i>Existing Residential Board and Care</i>
Fire alarm signal initiation (continued)	Automatic detection (continued)	<p><b>101 Ref.</b></p> <p>32.3.3.4.8.3</p> <p>Smoke detection systems shall not be required in unenclosed corridors, passageways, balconies, colonnades, or other arrangements with one or more sides along the long dimension fully or extensively open to the exterior at all times. Also see 32.3.3.4.2(4) above.</p>	<p><b>101 Ref.</b></p> <p>33.3.3.4.7.2</p> <p>Existing battery-powered smoke alarms, rather than building electrical service-powered smoke alarms, shall be accepted where, in the opinion of the authority having jurisdiction, the facility has demonstrated that testing, maintenance, and battery replacement programs ensure the reliability of power to the smoke alarms.</p> <p>33.3.3.4.7.3</p> <p>Sleeping room smoke alarms shall not be required in facilities having an existing corridor smoke detection system that complies with Section 9.6 and is connected to the building fire alarm system.</p> <p>33.3.3.4.8.1</p> <p>All living areas, as defined in 3.3.19.5, and all corridors shall be provided with smoke detectors that comply with NFPA 72, <i>National Fire Alarm Code</i>, and are arranged to initiate an alarm that is audible in all sleeping areas, as modified by 33.3.3.4.8.2 and 33.3.3.4.8.3.</p> <p>33.3.3.4.8.2</p> <p>Smoke detection systems shall not be required in living areas in facilities protected throughout by an approved automatic sprinkler system installed in accordance with 33.3.3.5.</p> <p>33.3.3.4.8.3</p> <p>Smoke detection systems shall not be required in unenclosed corridors, passageways, balconies, colonnades, or other arrangements with one or more sides along the long dimension fully or extensively open to the exterior at all times.</p>
	Extinguishing system operation	<p><b>Small Facility</b></p> <p>See 9.7.2.2 below. Also see 32.2.3.5 in NFPA 101 for extinguishing system requirements and 32.2.3.6 for additional extinguishing system provisions.</p>	<p><b>Small Facility</b></p> <p>See 9.7.2.2 below. Also see 33.2.3.5 in NFPA 101 for extinguishing system requirements and 32.2.3.6 for additional extinguishing system provisions.</p>

			<p><b>Large Facility</b></p> <p>All buildings shall be protected throughout by an approved automatic sprinkler system installed in accordance with 9.7.1.1(1) and provided with quick-response or residential sprinklers throughout.</p> <p>Also see 32.3.3.4.2(3) above. Also see 9.7.2.2 below.</p>	<p><b>Large Facility</b></p> <p>See 33.3.3.4.2(3) above. Also see 33.3.3.5 in NFPA 101 for extinguishing system requirements and in 33.3.3.6 for additional extinguishing system provisions.</p>
FAS supervisory signal initiation	Extinguishing system supervision	32.3.3.5.1	<p><b>Small Facility</b></p> <p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p> <p>See 32.2.3.5.4 and 32.2.3.5.5 in NFPA 101.</p>	<p><b>Small Facility</b></p> <p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p> <p>See 33.2.3.5.3 in NFPA 101.</p>
		32.3.3.5.4	<p><b>Large Facility</b></p> <p>Automatic sprinkler systems shall be provided with electrical supervision in accordance with 9.7.2.</p>	<p><b>Large Facility</b></p> <p>Automatic sprinkler systems shall be supervised in accordance with Section 9.7; waterflow alarms shall not be required to be transmitted off-site.</p>
		9.7.2.1	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p>	<p><b>Small Facility</b></p> <p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p>

(continues)

		<i>Residential Board and Care Occupancies Continued</i>		<i>Existing Residential Board and Care</i>	
		<i>New Residential Board and Care</i>	<i>Requirement</i>	<i>101 Ref.</i>	<i>Requirement</i>
FAS supervisory signal initiation (continued)	Extinguishing system supervision (continued)	101 Ref.	to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.		
Occupant notification	Audible/visible	32.2.3.4.2	<b>Small Facility</b> Occupant notification shall be provided automatically, without delay, in accordance with 9.6.3.	33.2.3.4.2	<b>Small Facility</b> Occupant notification shall be in accordance with 9.6.3.
		32.3.3.4.4	<b>Large Facility</b> Occupant notification shall be provided automatically, without delay, in accordance with 9.6.3.	33.3.3.4.4	<b>Large Facility</b> Occupant notification shall be provided automatically, without delay, by internal audible alarm in accordance with 9.6.3.
		<b>Small Facility</b> Not addressed.		<b>Small Facility</b> Not addressed.	
		<b>Large Facility</b> See 32.3.3.4.6(2) below.		<b>Large Facility</b> Not addressed.	
		Not addressed.		Not addressed.	
	Positive alarm sequence				
	Presignal system				
	Voice announcements		<b>Small Facility</b> Not specifically addressed; however, see 9.6.3.9.		<b>Small Facility</b> Not specifically addressed; however, see 9.6.3.9.



<i>Residential Board and Care Occupancies Continued</i>				
	<i>New Residential Board and Care</i>		<i>Existing Residential Board and Care</i>	
	<i>101 Ref.</i>	<i>Requirement</i>	<i>101 Ref.</i>	<i>Requirement</i>
Annunciator (continued)	32.3.3.4.3	<b>Large Facility</b> An annunciator panel, connected to the fire alarm system, shall be provided at a location readily accessible from the primary point of entry for emergency response personnel.		<b>Large Facility</b> Not addressed.
Emergency control (fire safety) functions		See separate summary table for emergency control (fire safety) functions, where applicable.		See separate summary table for emergency control (fire safety) functions, where applicable.

**Mercantile Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**36.1.1.1** The requirements of this chapter shall apply to new buildings or portions thereof used as mercantile occupancies (see 1.3.1).

**37.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as mercantile occupancies.

**3.3.32.4 Bulk Merchandising Retail Building.** A building in which the sales area includes the storage of combustible materials on pallets, in solid piles, or in racks in excess of 12 ft (3660 mm) in storage height.

**3.3.178.9\* Mercantile Occupancy.** An occupancy used for the display and sale of merchandise.

**3.3.32.9\* Mall Building.** A single building enclosing a number of tenants and occupancies wherein two or more tenants have a main entrance into one or more malls. For the purpose of this Code, anchor buildings shall not be considered as a part of the mall building.

**3.3.158 Mall.** A roofed or covered common pedestrian area within a mall building that serves as access for two or more tenants and does not exceed three levels that are open to each other.

**36.1.4.2.1** Mercantile occupancies shall be subclassified as follows:

- (1) Class A, all mercantile occupancies having an aggregate gross area of more than 30,000 ft<sup>2</sup> (2800 m<sup>2</sup>) or occupying more than three stories for sales purposes

(2) Class B as follows:

- (a) Class B, all mercantile occupancies of more than 3000 ft<sup>2</sup> (280 m<sup>2</sup>), but not more than 30,000 ft<sup>2</sup> (2800 m<sup>2</sup>), aggregate gross area and occupying not more than three stories for sales purposes
- (b) All mercantile occupancies of not more than 3000 ft<sup>2</sup> (280 m<sup>2</sup>) gross area and occupying two or three stories for sales purposes
- (3) Class C, all mercantile occupancies of not more than 3000 ft<sup>2</sup> (280 m<sup>2</sup>) gross area and used for sales purposes occupying one story only

**36.4.4 Mall Buildings.** The provisions of 36.4.4 shall apply to mall buildings three or fewer stories in height and any number of anchor buildings. (See 3.3.32.9.)

**37.1.4.2.1** Mercantile occupancies shall be subclassified as follows:

- (1) Class A, all mercantile occupancies having an aggregate gross area of more than 30,000 ft<sup>2</sup> (2800 m<sup>2</sup>) or occupying more than three stories for sales purposes
- (2) Class B, as follows:
  - (a) All mercantile occupancies of more than 3000 ft<sup>2</sup> (280 m<sup>2</sup>) but not more than 30,000 ft<sup>2</sup> (2800 m<sup>2</sup>) aggregate gross area and occupying not more than three stories for sales purposes
  - (b) All mercantile occupancies of not more than 3000 ft<sup>2</sup> (280 m<sup>2</sup>) gross area and occupying two or three stories for sales purposes
- (3) Class C, all mercantile occupancies of not more than 3000 ft<sup>2</sup> (280 m<sup>2</sup>) gross area used for sales purposes and occupying one story only, excluding mezzanines

**Mercantile Occupancies**

	New Mercantile		Existing Mercantile	
	101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system	36:3.4.1	<b>Class A Mercantile Occupancies</b> Class A mercantile occupancies shall be provided with a fire alarm system in accordance with Section 9.6.	37:3.4.1	<b>Class A Mercantile Occupancies</b> Class A mercantile occupancies shall be provided with a fire alarm system in accordance with Section 9.6.

(continues)

		New Mercantile		Existing Mercantile	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system (continued)		36.4.4.4.1	<b>Mall Buildings</b> Malls shall be provided with a fire alarm system in accordance with Section 9.6.	37.4.4.4.1	<b>Mall Buildings</b> Malls shall be provided with a fire alarm system in accordance with Section 9.6.
		36.4.5.4.1	<b>Bulk Merchandising Retail Building</b> Bulk merchandising retail buildings shall be provided with a fire alarm system in accordance with Section 9.6.	37.4.5.4.1	<b>Bulk Merchandising Retail Building</b> Bulk merchandising retail buildings shall be provided with a fire alarm system in accordance with Section 9.6.
		36.3.4.2	<b>Class A Mercantile Occupancies</b> Initiation of the required fire alarm system shall be by any one of the following means: (1) Manual means in accordance with 9.6.2.1(1) (2) Approved automatic fire detection system that complies with 9.6.2.1(2) and provides protection throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6 (3) Approved automatic sprinkler system that complies with 9.6.2.1(3) and provides protection throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6	37.3.4.2	<b>Class A Mercantile Occupancies</b> Initiation of the required fire alarm system shall be by one of the following means: (1) Manual means per 9.6.2.1(1) (2) Approved automatic fire detection system that complies with 9.6.2.1(2) and provides protection throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6 (3) Approved automatic sprinkler system that complies with 9.6.2.1(3) and provides protection throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6
Fire alarm signal initiation	Manual initiation	36.4.4.4.2	<b>Mall Buildings</b> Initiation of the required fire alarm system shall be by means of the required automatic sprinkler system in accordance with 9.6.2.1(3).	37.4.4.4.2	<b>Mall Buildings</b> Initiation of the required fire alarm system shall be by means of the required automatic sprinkler system in accordance with 9.6.2.1(3).
		36.4.5.4.2	<b>Bulk Merchandising Retail Building</b> Initiation of the required fire alarm system shall be by means of the required approved automatic sprinkler system (see 36.4.5.5) in accordance with 9.6.2.1(3).	37.4.5.4.2	<b>Bulk Merchandising Retail Building</b> Initiation of the required fire alarm system shall be by means of the required approved automatic sprinkler system (see 37.4.5.5) in accordance with 9.6.2.1(3).
Automatic detection			For Class A mercantile occupancies see 36.3.4.2(2) above.		For Class A mercantile occupancies see 37.3.4.2(2) above.

Mercantile Occupancies Continued

<p>Extinguishing system operation</p>	<p>See 36.3.4.2(9), 36.4.4.4.2, and 36.4.5.4.2 above. Also see 9.7.2.2 below. Also see 36.3.5, 36.4.4.10, and 36.4.5.5 in NFPA 101 for extinguishing system requirements and 36.3.6 for additional extinguishing system provisions.</p>	<p>See 37.3.4.2(9), 37.4.4.4.2, and 37.4.5.4.2 above. Also see 9.7.2.2 below. Also see 37.3.5 and 37.4.5.5 in NFPA 101 for extinguishing system requirements.</p>
<p>FAS supervisory signal initiation</p>	<p>9.7.2.1 Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility. Also see 36.3.5, 36.4.4.10, and 36.4.5.5 in NFPA 101 for extinguishing system requirements and 36.3.6 for additional extinguishing system provisions.</p>	<p>9.7.2.1 Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, <i>National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility. Also see 37.3.5 and 37.4.5.5 in NFPA 101 for extinguishing system requirements.</p>
<p>Occupant notification</p>	<p>36.3.4.3.1 <b>Class A Mercantile Occupancies</b> During all times that the mercantile occupancy is occupied, the required fire alarm system, once initiated, shall activate an alarm in accordance with 9.6.3 throughout the mercantile occupancy, and positive alarm sequence in accordance with 9.6.3.4 shall be permitted.</p>	<p>37.3.4.3.1 <b>Class A Mercantile Occupancies</b> During all times that the mercantile occupancy is occupied, the required fire alarm system, once initiated, shall perform one of the following functions: (1) It shall activate an alarm in accordance with 9.6.3 throughout the mercantile occupancy, and positive alarm sequence in accordance with 9.6.3.4 or a presignal system in accordance with 9.6.3.3 shall be permitted.</p>

(continues)

		<i>Mercantile Occupancies Continued</i>	
		<i>New Mercantile</i>	<i>Existing Mercantile</i>
	<i>101 Ref.</i>	<i>Requirement</i>	<i>101 Ref.</i>
Occupant notification <i>(continued)</i>			
	Audible/visible <i>(continued)</i>		
	36.4.4.4.3.1	<p><b>Mall Buildings</b></p> <p>During all times that the mall is occupied, the required fire alarm system, once initiated, shall perform one of the following functions:</p> <ul style="list-style-type: none"> <li>(1) It shall activate a general alarm in accordance with 9.6.3 throughout the mall.</li> <li>(2) Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.</li> <li>(3) Occupant notification shall be permitted to be made via a voice communication or public address system in accordance with 9.6.3.9.2.</li> </ul> <p>Visible signals shall not be required in malls. (See 9.6.3.5.7 and 9.6.3.5.8.)</p>	<p><b>Mall Buildings</b></p> <p>During all times that the mall is occupied, the required fire alarm system, once initiated, shall perform one of the following functions:</p> <ul style="list-style-type: none"> <li>(1) It shall activate an alarm in accordance with 9.6.3 throughout the mall.</li> <li>(2) Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.</li> <li>(3) Occupant notification shall be permitted to be made via a voice communication or public address system in accordance with 9.6.3.9.2.</li> </ul>
	36.4.4.4.3.2		
	36.4.5.4.3	<p><b>Bulk Merchandising Retail Building</b></p> <p>During all times that the mercantile occupancy is occupied, the required fire alarm system, once initiated, shall activate an alarm in accordance with 9.6.3 throughout the mercantile occupancy, and positive alarm sequence in accordance with 9.6.3.4 shall be permitted.</p>	<p><b>Bulk Merchandising Retail Building</b></p> <p>During all times that the mercantile occupancy is occupied, the required fire alarm system, once initiated, shall perform one of the following functions:</p> <ul style="list-style-type: none"> <li>(1) It shall activate an alarm in accordance with 9.6.3 throughout the mercantile occupancy, and positive alarm sequence in accordance with 9.6.3.4 shall be permitted.</li> <li>(2) Occupant notification shall be permitted to be made via a voice communication or public address system in accordance with 9.6.3.9.2.</li> </ul>
Positive alarm sequence		See 36.3.4.3.1, 36.4.4.3.1(2), and 36.4.5.4.3 above.	See 37.3.4.3.1(1), 37.4.4.3.1(2), and 37.4.5.4.3(1) above.
Presignal system		Not addressed.	For Class A mercantile occupancies see 37.3.4.3.1(1) above.

	Voice announcements	See 36.3.4.3.1, 36.4.4.4.3.1(3), and 36.4.5.4.3 above.		
	Other provisions	See 36.3.4.3.1, 36.4.4.4.3.1(3), and 36.4.5.4.3 above.		
Emergency forces notification	36.3.4.3.2 36.4.4.4.3.3 36.4.5.4.4	Emergency forces notification shall be provided and shall include notifying the following: (1) Fire department in accordance with 9.6.4 (2) Local emergency organization, if provided	37.3.4.3.2 37.4.4.4.3.2 37.4.5.4.4	Emergency forces notification shall be provided and shall include notifying the following: (1) Fire department in accordance with 9.6.4 (2) Local emergency organization, if provided
	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  Also see 36.3.4.2(3), 36.4.4.4.2, and 36.4.5.4.2 above. Also see 36.3.5, 36.4.4.10, and 36.4.5.5 in NFPA 701 for extinguishing system requirements and 36.3.6 for additional extinguishing system provisions.	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  Also see 37.3.4.2(3), 37.4.4.4.2, and 37.4.5.4.2 above. Also see 37.3.5 and 37.4.5.5 in NFPA 701 for extinguishing system requirements.
Annunciator		Not addressed.		Not addressed.
Emergency control (fire safety) functions	36.4.4.4.4	The fire alarm system shall be arranged to automatically actuate smoke management or smoke control systems in accordance with 9.6.5.2(3).  Also see separate summary table for emergency control (fire safety) functions, where applicable.	37.4.4.4.4	The fire alarm system shall be arranged to automatically actuate smoke management or smoke control systems in accordance with 9.6.5.2(3).  Also see separate summary table for emergency control (fire safety) functions, where applicable.

**Business Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**39.1.1.1** The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as business occupancies.

**38.1.1.1** The requirements of this chapter shall apply to new buildings or portions thereof used as business occupancies (*see 1.3.1*).

**3.3.178.3\* Business Occupancy.** An occupancy used for the transaction of business other than mercantile.

**Business Occupancies**

		New Business		Existing Business	
		101 Ref.	Requirement	101 Ref.	Requirement
Fire alarm system	Manual initiation	38.3.4.1	A fire alarm system in accordance with Section 9.6 shall be provided in all business occupancies where any one of the following conditions exists: (1) The building is three or more stories in height. (2) The occupancy is subject to 50 or more occupants above or below the level of exit discharge. (3) The occupancy is subject to 300 or more total occupants.	39.3.4.1	A fire alarm system in accordance with Section 9.6 shall be provided in all business occupancies where any one of the following conditions exists: (1) The building is three or more stories in height. (2) The occupancy is subject to 100 or more occupants above or below the level of exit discharge. (3) The occupancy is subject to 1000 or more total occupants.
	Automatic detection	38.3.4.2	Initiation of the required fire alarm system shall be by one of the following means: (1) Manual means in accordance with 9.6.2.1(1) (2) Means of an approved automatic fire detection system that complies with 9.6.2.1(2) and provides protection throughout the building (3) Means of an approved automatic sprinkler system that complies with 9.6.2.1(3) and provides protection throughout the building  See 38.3.4.2(2) above.	39.3.4.2	Initiation of the required fire alarm system shall be by one of the following means: (1) Manual means in accordance with 9.6.2.1(1) (2) Means of an approved automatic fire detection system that complies with 9.6.2.1(2) and provides protection throughout the building (3) Means of an approved automatic sprinkler system that complies with 9.6.2.1(3) and provides protection throughout the building  See 39.3.4.2(2) above.
	Extinguishing system operation		See 38.3.4.2(3) above. Also see 9.7.2.2 below. Also see 38.3.6 in NFPA 101 for extinguishing system provisions.		See 39.3.4.2(3) above. Also see 9.7.2.2 below.

<p>FAS supervisory signal initiation</p>	<p>Extinguishing system supervision</p>	<p>9.7.2.1</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p>	<p>9.7.2.1</p>	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p>
<p>Occupant notification</p>	<p>Audible/visible</p>	<p>38.3.4.3</p>	<p>During all times that the building is occupied, the required fire alarm system, once initiated, shall activate a general alarm in accordance with 9.6.3 throughout the building, and positive alarm sequence in accordance with 9.6.3.4 shall be permitted.</p>	<p>39.3.4.3</p>	<p>During all times that the building is occupied (see 7.2.1.1.3), the required fire alarm system, once initiated, shall perform one of the following functions:</p> <ul style="list-style-type: none"> <li>(1) It shall activate a general alarm in accordance with 9.6.3 throughout the building, and the following also shall apply:                             <ul style="list-style-type: none"> <li>(a) Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.</li> <li>(b) A presignal system in accordance with 9.6.3.3 shall be permitted.</li> </ul> </li> <li>(2) Occupant notification shall be permitted to be made via a voice communication or public address system in accordance with 9.6.3.9.2.</li> </ul>
	<p>Positive alarm sequence</p>		<p>See 38.3.4.3 above.</p>		<p>See 39.3.4.3(1)(a) above.</p>
	<p>Presignal system</p>		<p>Not addressed.</p>		<p>See 39.3.4.3(1)(b) above.</p>
	<p>Voice announcements</p>		<p>See 38.3.4.3 above.</p>		<p>See 39.3.4.3(2) above.</p>
	<p>Other provisions</p>		<p>See 38.3.4.3 above.</p>		<p>See 39.3.4.3(2) above.</p>

(continues)

		New Business		Existing Business	
		101 Ref.	Requirement	101 Ref.	Requirement
Emergency forces notification	38.3.4.4	Emergency forces notification shall be provided and shall include notifying the following: (1) Fire department in accordance with 9.6.4 (2) Local emergency organization, if provided	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  See 38.3.6 in NFPA 101 for extinguishing system provisions.	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.
	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.			
Annunciator				Not addressed.	Not addressed.
Emergency control (fire safety) functions				See separate summary table for emergency control (fire safety) functions, where applicable.	See separate summary table for emergency control (fire safety) functions, where applicable.

**Industrial Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**40.1.1.1** The requirements of this chapter shall apply to both new and existing industrial occupancies.

**40.1.4.1.3\* High Hazard Industrial Occupancy.** High hazard industrial occupancies shall include the following:

- (1) Industrial occupancies that conduct industrial operations that use high hazard materials or processes or house high hazard contents
- (2) Industrial occupancies in which incidental high hazard operations in low or ordinary hazard occupancies that

are protected in accordance with Section 8.7 and 40.3.2 are not required to be the basis for overall occupancy classification

**3.3.178.8\* Industrial Occupancy.** An occupancy in which products are manufactured or in which processing, assembling, mixing, packaging, finishing, decorating, or repair operations are conducted.

**3.3.178.8.2\* High Hazard Industrial Occupancy.** An industrial occupancy in which industrial operations that include high hazard materials, processes, or contents are conducted.

*New and Existing Industrial*

		<i>101 Ref.</i>	<i>Requirement</i>
Fire alarm system		40.3.4.1	A fire alarm system shall be required in accordance with Section 9.6 for industrial occupancies, unless the total occupant load of the building is under 100 persons and unless, of these, fewer than 25 persons are above or below the level of exit discharge.
Fire alarm signal initiation	Manual initiation	40.3.4.2	Initiation of the required fire alarm system shall be by any of the following means:  (1) Manual means in accordance with 9.6.2.1(1) (2) Approved automatic fire detection system in accordance with 9.6.2.1(2) throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6 (3) Approved, supervised automatic sprinkler system in accordance with 9.6.2.1(3) throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6
	Automatic detection		See 40.3.4.2(2) above.
	Extinguishing system operation		See 40.3.4.2(3) above. Also see 9.7.2.2 below.
FAS supervisory signal initiation	Extinguishing system supervision	9.7.2.1	Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.  Also see 40.3.4.2(3) above.

(continues)

*New and Existing Industrial Continued*

		<i>101 Ref.</i>	<i>Requirement</i>
Occupant notification	Audible/visible	40.3.4.3.1	The required fire alarm system shall meet one of the following criteria: (1) It shall provide occupant notification in accordance with 9.6.3. (2) It shall sound an audible and visible signal in a constantly attended location for the purposes of initiating emergency action.
		40.3.4.3.4	In high hazard industrial occupancies, as described in 40.1.4.1.3, the required fire alarm system shall automatically initiate an occupant evacuation alarm signal in accordance with 9.6.3.
	Positive alarm sequence	40.3.4.3.2	Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
	Presignal system	40.3.4.3.3	Existing presignal systems in accordance with 9.6.3.3 shall be permitted.
	Voice announcements		Not addressed.
	Other provisions		Not addressed.
Emergency forces notification		9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this <i>Code</i> , waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  Also see 40.3.4.2(3) above.
Annunciator			Not addressed.
Emergency control (fire safety) functions			See separate summary table for emergency control (fire safety) functions, where applicable.

**Storage Occupancies**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**42.1.1.1** The requirements of this chapter shall apply to both new and existing storage occupancies.

**42.1.1.2** Storage occupancies shall include all buildings or structures used primarily for the storage or sheltering of goods, merchandise, products, vehicles, or animals.

**3.3.178.15\* Storage Occupancy.** An occupancy used primarily for the storage or sheltering of goods, merchandise, products, vehicles, or animals.

**3.3.254.6 Open Parking Structure.** A parking structure that, at each parking level, has wall openings open to the atmosphere, for an area of not less than 1.4 ft<sup>2</sup> for each linear foot (0.4 m<sup>2</sup> for each linear meter) of its exterior perimeter. Such openings are distributed over at least 40 percent of the building perimeter or uniformly over two opposing sides. Interior wall lines and column lines are at least 20 percent open, with openings distributed to provide ventilation.

*New and Existing Storage*

		<i>101 Ref.</i>	<i>Requirement</i>
Fire alarm system		42.3.4.1	A fire alarm system shall be required in accordance with Section 9.6 for storage occupancies, except as modified by 42.3.4.1.1, 42.3.4.1.2, and 42.3.4.1.3.
		42.3.4.1.1	Storage occupancies limited to low hazard contents shall not be required to have a fire alarm system.
		42.3.4.1.2	Storage occupancies with ordinary or high hazard contents not exceeding an aggregate floor area of 100,000 ft <sup>2</sup> (9300 m <sup>2</sup> ) shall not be required to have a fire alarm system.
		42.3.4.1.3	Storage occupancies protected throughout by an approved automatic sprinkler system in accordance with Section 9.7 shall not be required to have a fire alarm system.
			<b>Parking Structures</b>
		42.8.3.4.1	A fire alarm system shall be required in accordance with Section 9.6 for parking structures, except as modified by 42.3.4.1.1, 42.3.4.1.2, and 42.3.4.1.3.
		42.8.3.4.1.1	Parking structures not exceeding an aggregate floor area of 100,000 ft <sup>2</sup> (9300 m <sup>2</sup> ) shall not be required to have a fire alarm system.
		42.8.3.4.1.2	Open parking structures shall not be required to have a fire alarm system.
		42.8.3.4.1.3	Parking structures protected throughout by an approved automatic sprinkler system in accordance with Section 9.7 shall not be required to have a fire alarm system.
	Fire alarm signal initiation	Manual initiation	42.3.4.2

*(continues)*

<i>New and Existing Storage Continued</i>			
		<i>101 Ref.</i>	<i>Requirement</i>
Fire alarm signal initiation (continued)	Manual initiation (continued)	42.8.3.4.2	<p><b>Parking Structures</b></p> <p>Initiation of the required fire alarm system shall be by one of the following means:</p> <ul style="list-style-type: none"> <li>(1) Manual means in accordance with 9.6.2.1(1)</li> <li>(2) Approved automatic fire detection system in accordance with 9.6.2.1(2) throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6</li> <li>(3) Approved supervised automatic sprinkler system in accordance with 9.6.2.1(3) throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6</li> </ul>
	Automatic detection		See 42.3.4.2(2) above.
	Extinguishing system operation		See 42.3.4.2(3) and 42.8.3.4.2(3) above. Also see 9.7.2.2 below.
FAS supervisory signal initiation	Extinguishing system supervision	9.7.2.1	<p>Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with <i>NFPA 72, National Fire Alarm Code</i>, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility.</p> <p>Also see 42.3.4.2(3) and 42.8.3.4.2(3) above. Also see 42.8.3.1.1.3 and 42.8.3.1.1.4 in <i>NFPA 101</i> for additional extinguishing system provisions.</p>
Occupant notification	Audible/visible	42.3.4.3.1	<p>The required fire alarm system shall meet one of the following criteria:</p> <ul style="list-style-type: none"> <li>(1) It shall provide occupant notification in accordance with 9.6.3.</li> <li>(2) It shall sound an audible and visible signal in a constantly attended location for the purposes of initiating emergency action.</li> </ul>
		42.3.4.3.4	In high hazard storage occupancies, the required fire alarm system shall automatically initiate an occupant evacuation alarm signal in accordance with 9.6.3.
		42.8.3.4.3.1	<p><b>Parking Structures</b></p> <p>The required fire alarm system shall sound an audible alarm in a continuously attended location for purposes of initiating emergency action.</p>
	Positive alarm sequence	42.3.4.3.2 42.8.3.4.3.2	Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
	Presignal system	42.3.4.3.3 42.8.3.4.3.3	Existing presignal systems in accordance with 9.6.3.3 shall be permitted.
	Voice announcements		Not addressed.
	Other provisions		Not addressed.

*New and Existing Storage Continued*

	<i>101 Ref.</i>	<i>Requirement</i>
Emergency forces notification	9.7.2.2	Where supervision of automatic sprinkler systems is provided in accordance with another provision of this <i>Code</i> , waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3.  Also see 42.3.4.2(3) and 42.8.3.4.2(3) above. Also see 42.8.3.1.1.3 and 42.8.3.1.1.4 in NFPA 101 for additional extinguishing system provisions.
Annunciator		Not addressed.
Emergency control (fire safety) functions		See separate summary table for emergency control (fire safety) functions, where applicable.

**Special Structures and High-Rise Buildings**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**11.1.1 Application.** The requirements of Section 11.1 through Section 11.11 shall apply to occupancies regulated by Chapters 12 through 42 that are in a special structure. The applicable provisions of Chapters 12 through 42 shall apply, except as modified by this chapter. Section 11.8 shall apply to high-rise buildings only where specifically required by Chapters 12 through 42.

**3.3.32.7\* High-Rise Building.** A building where the floor of an occupiable story is greater than 75 ft (23 m) above the lowest level of fire department vehicle access.

**3.3.262 Tower.** An enclosed independent structure or portion of a building with elevated levels for support of equipment or occupied for observation, control, operation, signaling, or similar limited use.

**Special Structures and High-Rise Buildings**

		Towers		High-Rise
		101 Ref.	Requirement	101 Ref.
Fire alarm system	Manual initiation	11.3.3.4	Towers designed for occupancy by not more than three persons shall be exempt from requirements for detection, alarm, and communications systems. Also see occupancy chapter.	11.8.4.1
	Automatic detection		See occupancy chapter.	
	Extinguishing system operation		See occupancy chapter.	
FAS supervisory signal initiation	Extinguishing system supervision		See occupancy chapter.	9.7.2.1
	Supervisory signal initiation		See occupancy chapter.	

A fire alarm system using an approved, emergency voice/alarm communication system shall be installed in accordance with Section 9.6.  
Also see occupancy chapter.

See occupancy chapter.

See occupancy chapter.

High-rise buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7. A sprinkler control valve and a waterflow device shall be provided for each floor.  
Also see 9.7.2.2 below.  
Also see occupancy chapter.

Where supervised automatic sprinkler systems are required by another section of this Code, supervisory attachments shall be installed and monitored for integrity in accordance with NFPA 72, National Fire Alarm Code, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system. System

<p>components and parameters that are required to be monitored shall include, but shall not be limited to, control valves, fire pump power supplies and running conditions, water tank levels and temperatures, tank pressure, and air pressure on dry-pipe valves. Supervisory signals shall sound and shall be displayed either at a location within the protected building that is constantly attended by qualified personnel or at an approved, remotely located receiving facility. See 11.8.3.1 above. Also see occupancy chapter.</p>									
<p>See 11.8.4.1 above. Also see occupancy chapter.</p>									
<p>See 11.8.4.1 above. Also see occupancy chapter.</p>									
<p>See occupancy chapter.</p>									
<p>See 11.8.4.1 above. Also see occupancy chapter.</p>									
<p>Two-way telephone communication service shall be provided for fire department use. This system shall be in accordance with NFPA 72, <i>National Fire Alarm Code</i>. The communications system shall operate between the emergency command center and every elevator car, every elevator lobby, and each floor level of exit stairs.</p>	11.8.4.2.1								
<p>The requirement of 11.8.4.2.1 shall not apply where the fire department radio system is approved as an equivalent system. Also see occupancy chapter.</p>	11.8.4.2.2								
<p>Where supervision of automatic sprinkler systems is provided in accordance with another provision of this Code, waterflow alarms shall be transmitted to an approved, proprietary alarm-receiving facility, a remote station, a central station, or the fire department. Such connection shall be in accordance with 9.6.1.3. See 11.8.3.1 above. Also see occupancy chapter.</p>	9.7.2.2								
<p>See occupancy chapter.</p>									

(continues)

		<i>Special Structures and High-Rise Buildings Continued</i>	
		<i>Towers</i>	<i>High-Rise</i>
Annunciator	101 Ref.	Requirement See occupancy chapter.	101 Ref. An emergency command center shall be provided in a location approved by the fire department. The emergency command center shall contain the following: (1) Voice fire alarm system panels and controls (2) Fire department two-way telephone communication service panels and controls where required by another section of this Code (3) Fire detection and fire alarm system annunciation panels (4) Elevator floor location and operation annunciators (5) Elevator fire recall switch in accordance with ASME A17.1/CSA B44, <i>Safety Code for Elevators and Escalators</i> (6) Elevator emergency power selector switch(es) where provided in accordance with ASME A17.1/CSA B44. (7) Sprinkler valve and waterflow annunciators (8) Emergency generator status indicators (9) Controls for any automatic stairway door unlocking system (10) Fire pump status indicators (11) Telephone for fire department use with controlled access to the public telephone system Also see occupancy chapter.
	11.8.6.1 11.8.6.2		
Emergency control (fire safety) functions		Requirement See occupancy chapter.	

**Emergency Control (Fire Safety) Functions**

The following excerpts from NFPA 101, 2009 edition, are provided for reference:

**7.1.1\* Application.** Means of egress for both new and existing buildings shall comply with this chapter. (See also 5.5.3.)

**8.1.1 Application.** The features of fire protection set forth in this chapter shall apply to both new construction and existing buildings.

**3.3.95 Fire Safety Functions.** Building and fire control functions that are intended to increase the level of life safety for occupants or to control the spread of the harmful effects of fire.

<i>Emergency Control (Fire Safety) Function</i>	<i>101 Ref.</i>	<i>Requirement</i>
Door release	7.2.1.8.1  7.2.1.8.2     7.2.1.8.3	<p><b>Doors — Self-Closing Devices</b></p> <p>A door leaf normally required to be kept closed shall not be secured in the open position at any time and shall be self-closing or automatic-closing in accordance with 7.2.1.8.2, unless otherwise permitted by 7.2.1.8.3.</p> <p>In any building of low or ordinary hazard contents, as defined in 6.2.2.2 and 6.2.2.3, or where approved by the authority having jurisdiction, doors shall be permitted to be automatic-closing, provided that the following criteria are met:</p> <ol style="list-style-type: none"> <li>(1) Upon release of the hold-open mechanism, the leaf becomes self-closing.</li> <li>(2) The release device is designed so that the leaf instantly releases manually and, upon release, becomes self-closing, or the leaf can be readily closed.</li> <li>(3) The automatic releasing mechanism or medium is activated by the operation of approved smoke detectors installed in accordance with the requirements for smoke detectors for door leaf release service in <i>NFPA 72, National Fire Alarm Code</i>.</li> <li>(4) Upon loss of power to the hold-open device, the hold-open mechanism is released and the door leaf becomes self-closing.</li> <li>(5) The release by means of smoke detection of one door leaf in a stair enclosure results in closing all doors leaves serving that stair.</li> </ol> <p>The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with the requirements of 9.4.3 shall be permitted to remain open during Phase I Emergency Recall Operation.</p>
	7.2.1.9.2	<p><b>Powered Doors</b></p> <p><b>Self-Closing or Self-Latching Door Leaf Operations.</b></p> <p>Where door leaves are required to be self-closing or self latching and are operated by power upon the approach of a person, or are provided with power-assisted manual operation, they shall be permitted in the means of egress where they meet the following criteria:</p> <ol style="list-style-type: none"> <li>(1) The door leaves can be opened manually in accordance with 7.2.1.9.1 to allow egress travel in the event of power failure.</li> <li>(2) New door leaves remain in the closed position unless actuated or opened manually.</li> <li>(3) When actuated, new door leaves remain open for not more than 30 seconds.</li> <li>(4) Door leaves held open for any period of time close — and the power-assist mechanism ceases to function — upon operation of approved smoke detectors installed in such a way as to detect smoke on either side of the door opening in accordance with the provisions of <i>NFPA 72, National Fire Alarm Code</i>.</li> <li>(5) Door leaves required to be self-latching are either self-latching or become self-latching upon operation of approved smoke detectors per 7.2.1.9.2(4).</li> </ol>

(continues)

Emergency Control (Fire Safety) Function	101 Ref.	Requirement
Door release (continued)	7.2.3.4	<p>(6) New power-assisted swinging door assemblies comply with BHMA/ANSI A156.19, <i>American National Standard for Power Assist and Low Energy Power Operated Doors</i>.</p> <p><b>Smokeproof Enclosures</b></p> <p>Where a vestibule is provided, the door opening into the vestibule shall be protected with an approved fire door assembly having a minimum 1½-hour fire protection rating, and the fire door assembly from the vestibule to the smokeproof enclosure shall have a minimum 20-minute fire protection rating. Door leaves shall be designed to minimize air leakage and shall be self-closing or shall be automatic-closing by actuation of a smoke detector within 10 ft (3050 mm) of the vestibule door opening. New door assemblies shall be installed in accordance with NFPA 105, <i>Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives</i>.</p>
	7.2.3.7	<p><b>Natural Ventilation.</b> Smokeproof enclosures using natural ventilation shall comply with 7.2.3.3 and the following:</p> <ol style="list-style-type: none"> <li>(1) Where access to the enclosure is by means of an open exterior balcony, the door assembly to the enclosure shall have a minimum 1½-hour fire protection rating and shall be self-closing or shall be automatic-closing by actuation of a smoke detector.</li> <li>(2) Openings adjacent to the exterior balcony specified in 7.2.3.7(1) shall be protected in accordance with 7.2.2.6.4.</li> <li>(3) Every vestibule shall have a net area of not less than 16 ft<sup>2</sup> (1.5 m<sup>2</sup>) of opening in an exterior wall facing an exterior court, yard, or public space not less than 20 ft (6100 mm) in width.</li> <li>(4) Every vestibule shall have a minimum dimension of not less than the required width of the corridor leading to it and a dimension of not less than 6 ft (1830 mm) in the direction of travel.</li> </ol>
	7.2.13.5	<p><b>Elevator Lobby Doors</b></p> <p>The elevator lobby door leaves shall close in response to a signal from a smoke detector located directly outside the elevator lobby adjacent to or on each door opening. Elevator lobby door leaves shall be permitted to close in response to a signal from the building fire alarm system. Where one elevator lobby door leaf closes by means of a smoke detector or a signal from the building fire alarm system, all elevator lobby doorleaves serving that elevator evacuation system shall close.</p>
Door unlocking	7.2.1.5.7	<p><b>Locks, Latches, and Alarm Device</b></p> <p>Every door assembly in a stair enclosure serving more than four stories, unless permitted by 7.2.1.5.7.2, shall meet one of the following conditions:</p> <ol style="list-style-type: none"> <li>(1) Re-entry from the stair enclosure to the interior of the building shall be provided.</li> <li>(2) An automatic release that is actuated with the initiation of the building fire alarm system shall be provided to unlock all stair enclosure doors assemblies to allow re-entry.</li> <li>(3) Selected re-entry shall be provided in accordance with 7.2.1.5.7.1.</li> </ol>
	7.2.1.6.1	<p><b>Delayed-Egress Locking Systems</b></p> <p>Approved, listed, delayed-egress locking systems shall be permitted to be installed on door assemblies serving low and ordinary hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system in accordance with Section 9.6 or an approved, supervised automatic sprinkler system in accordance with Section 9.7, and where permitted in Chapters 11 through 43, provided that the following criteria are met:</p> <ol style="list-style-type: none"> <li>(1) The provisions of 7.2.1.6.2 for access-controlled egress door assemblies shall not apply to door assemblies with delayed-egress locking systems.</li> <li>(2) The door leaves shall unlock upon actuation of one of the following: <ol style="list-style-type: none"> <li>(a) Approved, supervised automatic sprinkler system in accordance with Section 9.7</li> <li>(b) Not more than one heat detector of an approved, supervised automatic fire detection system in accordance with Section 9.6</li> </ol> </li> </ol>

Emergency Control (Fire Safety) Function	101 Ref.	Requirement
Door unlocking (continued)		<p>(c) Not more than two smoke detectors of an approved, supervised automatic fire detection system in accordance with Section 9.6</p> <p>(3) The doors shall unlock upon loss of power controlling the lock or locking mechanism.</p> <p>(4) An irreversible process shall release the lock within 15 seconds, or 30 seconds where approved by the authority having jurisdiction, upon application of a force to the release device required in 7.2.1.5.9 under the following conditions:</p> <p>(a) The force shall not be required to exceed 15 lbf (67 N).</p> <p>(b) The force shall not be required to be continuously applied for more than 3 seconds.</p> <p>(c) The initiation of the release process shall activate an audible signal in the vicinity of the door opening.</p> <p>(d) Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.</p> <p>(5) A readily visible, durable sign in letters not less than 1 in. (25 mm) high and not less than 1/8 in. (3.2 mm) in stroke width on a contrasting background that reads as follows shall be located on the door leaf adjacent to the release device:                      PUSH UNTIL ALARM SOUNDS                      DOOR CAN BE OPENED IN 15 SECONDS</p>
	7.2.1.6.2	<p><b>Access-Controlled Egress Door Assemblies</b></p> <p>Where permitted in Chapters 11 through 43, door assemblies in the means of egress shall be permitted to be equipped with an approved entrance and egress access control system, provided that all the following criteria are met:</p> <p>(1) A sensor shall be provided on the egress side, arranged to detect an occupant approaching door leaves that are arranged to unlock in the direction of egress upon detection of an approaching occupant or loss of power to the sensor.</p> <p>(2) Loss of power to the part of the access control system that locks the door leaves shall automatically unlock the door leaves in the direction of egress.</p> <p>(3) The door leaves shall be arranged to unlock in the direction of egress from a manual release device located 40 in. to 48 in. (1015 mm to 1220 mm) vertically above the floor and within 60 in. (1525 mm) of the secured door openings.</p> <p>(4) The manual release device specified in 7.2.1.6.2(3) shall be readily accessible and clearly identified by a sign that reads as follows: PUSH TO EXIT.</p> <p>(5) When operated, the manual release device shall result in direct interruption of power to the lock — independent of the access control system electronics — and the door leaves shall remain unlocked for not less than 30 seconds.</p> <p>(6) Activation of the building fire-protective signaling system, if provided, shall automatically unlock the door leaves in the direction of egress, and they shall remain unlocked until the fire-protective signaling system has been manually reset.</p> <p>(7) The activation of manual fire alarm boxes that activate the building fire-protective signaling system specified in 7.2.1.6.2(6) shall not be required to unlock the door leaves.</p> <p>(8) Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the door leaves in the direction of egress, and they shall remain unlocked until the fire-protective signaling system has been manually reset.</p>
Mechanical ventilation and pressurized enclosure systems	7.2.3.10.1 7.2.3.10.2	<p><b>Smokeproof Enclosures</b></p> <p>For both mechanical ventilation and pressurized enclosure systems, the activation of the systems shall be initiated by a smoke detector installed in an approved location within 10 ft (3050 mm) of each entrance to the smokeproof enclosure.</p> <p>The required mechanical system shall operate upon the activation of the smoke detectors specified in 7.2.3.10.1 and by manual controls accessible to the fire department. The required system also shall be initiated by the following, if provided:</p>

(continues)

Emergency Control (Fire Safety) Function	101 Ref.	Requirement
Mechanical ventilation and pressurized enclosure systems (continued)		(1) Waterflow signal from a complete automatic sprinkler system (2) General evacuation alarm signal (see 9.6.3.6 )
Elevator recall and shutdown	7.2.13.9	<p><b>Elevator Operation</b></p> <p>Elevators shall be provided with fire fighters' emergency operations in accordance with ASME A17.1/CSA B44, <i>Safety Code for Elevators and Escalators</i>.</p>
Marking of means of egress	7.10.1.7	<p><b>Floor Proximity Egress Path Marking</b></p> <p>Where floor proximity egress path marking is required in Chapters 11 through 43, an approved floor proximity egress path marking system that is internally illuminated shall be installed within 18 in. (455 mm) of the floor. Floor proximity egress path marking systems shall be listed in accordance with ANSI/UL 1994, <i>Standard for Luminous Egress Path Marking Systems</i>. The system shall provide a visible delineation of the path of travel along the designated exit access and shall be essentially continuous, except as interrupted by doorways, hallways, corridors, or other such architectural features. The system shall operate continuously or at any time the building fire alarm system is activated. The activation, duration, and continuity of operation of the system shall be in accordance with 7.9.2. The system shall be maintained in accordance with the product manufacturing listing.</p>
	7.10.5.2.1	<p><b>Continuous Illumination</b></p> <p>Every sign required to be illuminated by 7.10.6.3, 7.10.7, and 7.10.8.1 shall be continuously illuminated as required under the provisions of Section 7.8, unless otherwise provided in 7.10.5.2.2.</p>
	7.10.5.2.2	<p>Illumination for signs shall be permitted to flash on and off upon activation of the fire alarm system.</p>
Smoke control	8.4.6.4	<p><b>Smoke Partitions</b></p> <p>Dampers in air-transfer openings shall close upon detection of smoke by approved smoke detectors installed in accordance with <i>NFPA 72, National Fire Alarm Code</i>.</p>
	8.5.5.4.1	<p><b>Smoke Barriers</b></p> <p>Air-conditioning, heating, ventilating ductwork, and related equipment, including smoke dampers and combination fire and smoke dampers, shall be installed in accordance with <i>NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems</i>, and <i>NFPA 105, Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives</i>.</p> <p>(See <a href="#">NFPA 90A</a> for smoke detection requirements.)</p>
	8.5.5.4.2	<p>Smoke dampers and combination fire and smoke dampers shall be inspected, tested, and maintained in accordance with <i>NFPA 105</i>.</p>
	8.5.5.7.1	<p>Required smoke dampers in ducts penetrating smoke barriers shall close upon detection of smoke by approved smoke detectors in accordance with <i>NFPA 72, National Fire Alarm Code</i>, unless one of the following conditions exists:</p> <ol style="list-style-type: none"> <li>(1) The ducts penetrate smoke barriers above the smoke barrier doors, and the door release detector actuates the damper.</li> <li>(2) Approved smoke detector installations are located within the ducts in existing installations.</li> </ol>
	8.5.5.7.2	<p>Where a duct is provided on one side of the smoke barrier, the smoke detectors on the duct side shall be in accordance with 8.5.5.7.1.</p>
	8.5.5.7.3	<p>Required smoke dampers in air-transfer openings shall close upon detection of smoke by approved smoke detectors in accordance with <i>NFPA 72, National Fire Alarm Code</i>.</p>