

1305.0907 [F] SECTION 907, FIRE ALARM AND DETECTION SYSTEMS.

Subpart 1. **[F] Section 907.1.3.** IBC [F] Section 907.1 is amended by adding a subsection to read as follows:

907.1.3 Protection of control units. In areas that are not continuously occupied, automatic fire detection shall be provided at the location of each new fire alarm control unit, fire alarm notification circuit power extender, and supervising station transmitting equipment to provide notification of fire at that location.

Exception: Additional detection is not required in buildings sprinklered in accordance with Section 903.3.1.1 or 903.3.1.2.

Subp. 1a. **[F] Section 907.2.** IBC [F] Section 907.2 is amended to read as follows:

907.2 Where required in new buildings and occupancies. An approved manual, automatic, or manual and automatic fire alarm system shall be provided in new buildings and occupancies in accordance with Sections 907.2.1 through 907.2.24 and NFPA 72. For the purposes of Sections 907.2.1 through 907.2.24, fire barrier walls or fire walls shall not define separate buildings. In buildings containing mixed occupancies that are designed as separated uses in accordance with Section 508.3.3, fire alarm and detection systems need only be installed in those occupancies where required by this section.

Exception: In areas protected by an approved, supervised automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, automatic fire detectors required by Section 907.2 need not be provided. Where Section 907.2 requires smoke detectors, such protection shall be installed.

Subp. 2. [Repealed, 32 SR 7]

Subp. 3. **[F] Section 907.2.1.1.** IBC [F] Section 907.2.1.1 is amended to read as follows:

907.2.1.1 Initiation. Initiation of the fire alarm system shall be by automatic means. Approved automatic fire detectors shall be installed in laundry rooms, boiler and furnace rooms, mechanical and electrical rooms, shops, kitchens, trash collection rooms, storage rooms, and similar areas.

Subp. 4. **[F] Section 907.2.1.2.** IBC [F] Section 907.2.1.2 is amended to read as follows:

907.2.1.2 Notification. The required fire alarm system shall activate an audible and visible notification appliance at a constantly attended location within the building for the purposes of initiating emergency action. A presignal feature and positive alarm sequencing in accordance with NFPA 72 are permitted.

Occupant notification shall be by means of voice announcements, either live or prerecorded, initiated by the person in the constantly attended location.

Exception: Where no constantly attended location exists, an automatic fire alarm system providing a general evacuation signal or an approved emergency voice/alarm communications system is permitted.

Subp. 5. **[F] Section 907.2.1.** IBC [F] Section 907.2.1 is amended by adding a section to read as follows:

907.2.1.3 System initiation in Group A occupancies with an occupant load of 1,000 or more. Activation of the fire alarm system in Group A occupancies with an occupant load of 1,000 or more shall immediately initiate an approved prerecorded message announcement using an approved emergency voice/alarm communications system in accordance with NFPA 72.

Exception: Where approved, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed 3 minutes, for the sole purpose of allowing a live voice announcement from an approved constantly attended location.

Subp. 6. **[F] Section 907.2.2.** IBC [F] Section 907.2.2 is amended to read as follows:

907.2.2 Group B, general. A fire alarm system shall be installed in accordance with Sections 907.2.2 through 907.2.2.3 in Group B occupancies where:

1. The building has an occupant load of 500 or more persons; or
2. The building has an occupant load of more than 100 persons above or below the lowest level of exit discharge; or
3. The building contains an outpatient clinic.

When automatic sprinkler systems or automatic fire detectors are installed in outpatient clinics, such systems or detectors shall be connected to the building fire alarm system.

Exception: In other than outpatient clinics, a fire alarm system is not required when an approved automatic fire extinguishing system is installed throughout the building.

Subp. 7. **[F] Section 907.2.2.** IBC [F] Section 907.2.2 is amended by adding a section to read as follows:

907.2.2.1 Initiation. Initiation of the fire alarm system shall be by automatic means. Approved automatic fire detectors shall be provided in boiler and furnace rooms, shops, kitchens, mechanical and electrical rooms, trash collection rooms, storage rooms and similar areas. In outpatient clinics, initiation of the fire alarm system shall also be by manual means.

Subp. 8. **[F] Section 907.2.2.** IBC [F] Section 907.2.2 is amended by adding a section to read as follows:

907.2.2.2 Notification. Activation of the fire alarm system shall initiate a general evacuation signal.

Exception: In lieu of audible notification appliances, visible notification appliances shall be permitted to be used in patient care areas.

Subp. 9. **[F] Section 907.2.2.** IBC [F] Section 907.2.2 is amended by adding a section to read as follows:

907.2.2.3 Outpatient clinics. Corridors in outpatient clinics and spaces open to the corridors shall be protected by an automatic smoke detection system.

Subp. 10. **[F] Section 907.2.3.** IBC [F] Section 907.2.3 is amended to read as follows:

907.2.3 Group E, general. A fire alarm system shall be installed in accordance with Sections 907.2.3 through 907.2.3.3 in Group E occupancies having an occupant load of 50 or more.

Subp. 11. **[F] Section 907.2.3.** IBC [F] Section 907.2.3 is amended by adding a section to read as follows:

907.2.3.1 Initiation. Initiation of the fire alarm system shall be by manual and automatic means. Approved automatic fire detectors shall be provided in laundry rooms, boiler and furnace rooms, mechanical and electrical rooms, shops, laboratories, kitchens, locker rooms, janitors' closets, trash collection rooms, storage rooms, lounges and similar areas.

Exceptions:

1. In buildings protected throughout by an approved, supervised fire sprinkler system, manual fire alarm boxes are only required in the main office and in a custodial area.
2. Where all corridors are protected by an approved automatic fire alarm system having smoke detection with alarm verification, manual fire alarm boxes are only required near exits serving shops, chemistry and physics laboratories, boiler rooms, industrial technology and industrial arts rooms, kitchens, custodian's offices, and main offices.

Subp. 12. **[F] Section 907.2.3.** IBC [F] Section 907.2.3 is amended by adding a subsection to read as follows:

907.2.3.2 Travel through adjoining rooms. Where the only means of egress travel from an interior room or rooms having an aggregate occupant load of more than 10 occupants is through an adjoining or intervening room, automatic smoke detectors shall be installed throughout the common atmosphere through which the path of egress travel passes.

Exception: In buildings that are protected throughout by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, smoke detectors are not required in intervening or adjoining rooms.

Subp. 13. **[F] Section 907.2.3.** IBC [F] Section 907.2.3 is amended by adding a section to read as follows:

907.2.3.3 Notification. Activation of the fire alarm system or automatic sprinkler system shall initiate a general evacuation signal.

Subp. 14. **[F] Section 907.2.4.** IBC [F] Section 907.2.4 is amended to read as follows:

907.2.4 Group F, general. A fire alarm system shall be installed in accordance with Sections 907.2.4 through 907.2.4.2 in Group F occupancies that are two or more stories in height and have an occupant load of 500 or more above or below the lowest level of exit discharge.

Exception: A fire alarm system is not required when an approved automatic fire extinguishing system is installed throughout the building.

Subp. 15. **[F] Section 907.2.4.** IBC [F] Section 907.2.4 is amended by adding a section to read as follows:

907.2.4.1 Initiation. Initiation of the fire alarm system shall be by manual and automatic means. Approved automatic fire detectors shall be provided in boiler and furnace rooms, trash collection rooms, kitchens, mechanical and electrical rooms, and similar areas.

Subp. 16. **[F] Section 907.2.4.** IBC [F] Section 907.2.4 is amended by adding a section to read as follows:

907.2.4.2 Notification. Activation of the fire alarm system shall initiate a general evacuation signal.

Subp. 17. **[F] Section 907.2.5.** IBC [F] Section 907.2.5 is amended to read as follows:

907.2.5 Group H, general. A fire alarm system shall be installed in accordance with Sections 907.2.5 through 907.2.5.2 in Group H-5 occupancies, occupancies used for the manufacture of organic coatings, and, when required by Chapters 37, 39 and 40, the following locations:

1. Rooms or areas where highly toxic compressed gases are stored or used;
2. Rooms or areas where Class I, II or III organic peroxides are stored; and
3. Liquid and solid oxidizer storage areas.

Subp. 18. **[F] Section 907.2.5.** IBC [F] Section 907.2.5 is amended by adding a section to read as follows:

907.2.5.1 Initiation. Initiation of the fire alarm system in Group H-5 Occupancies and in occupancies used for the manufacture of organic coatings shall be by manual means. Initiation of fire alarm systems installed for highly toxic gases, organic peroxides and oxidizers shall be by automatic means, as specified in Chapters 37, 39 and 40.

Subp. 19. **[F] Section 907.2.5.** IBC [F] Section 907.2.5 is amended by adding a section to read as follows:

907.2.5.2 Notification. Activation of the fire alarm system in Group H-5 Occupancies and in occupancies used for the manufacture of organic coatings shall initiate a general evacuation signal. Activation of the automatic detection systems installed for highly toxic gases, organic peroxides, and oxidizers shall sound a local alarm.

Subp. 20. [Repealed, 32 SR 7]

Subp. 21. [Repealed, 32 SR 7]

Subp. 22. **[F] Section 907.2.6.** IBC [F] Section 907.2.6 and all subsections are deleted in their entirety and replaced with the following:

907.2.6 Group I, general. A fire alarm system shall be installed in accordance with Sections 907.2.6 through 907.2.6.4.3 in Group I occupancies.

907.2.6.1 Initiation. Initiation of the fire alarm system shall be by manual and automatic means. Approved automatic fire detectors shall be installed in laundry and soiled linen rooms, boiler and furnace rooms, mechanical and electrical rooms, shops, laboratories, kitchens, locker rooms, janitors' closets, trash-collection rooms, storage rooms, lounges, gift shops, and similar areas. Automatic smoke detectors shall be provided in waiting areas that are open to corridors.

Exception: Manual fire alarm boxes in patient sleeping areas of Group I-1 and I-2 occupancies shall not be required at exits if located at all nurses' stations or other constantly attended staff locations, provided such fire alarm boxes are visible and continuously accessible and that travel distances required by Section 907.4.1 are not exceeded.

907.2.6.2 Notification. Activation of the fire alarm system or automatic sprinkler system shall initiate a general evacuation signal. In addition, activation of the fire alarm system shall immediately transmit an alarm to an approved central station or remote station service.

Exceptions:

1. In lieu of audible notification appliances, visible notification appliances shall be allowed to be used in critical care areas.
2. Where occupants are incapable of evacuating themselves because of age, physical/mental disabilities, or physical restraint, only the attendants or other personnel required to evacuate occupants from a zone, area, floor or building shall be required to be notified. This notification shall include means to readily identify the zone, area, floor or building in need of evacuation.

907.2.6.3 Group I-2 Occupancies. Corridors in hospitals, nursing homes (both intermediate care and skilled nursing facilities), board and care homes and detoxification facilities and spaces open to the corridors shall be protected by an automatic smoke-detection system.

907.2.6.3.1 Patient room smoke detectors. Smoke detectors that receive their primary power from the building wiring shall be installed in patient sleeping rooms of hospitals and nursing homes. Actuation of such detectors shall cause a visual display on the corridor side of the room in which the detector is located and shall cause an audible and visual alarm at the nurse's station attending the room.

907.2.6.4 Group I-3 Occupancies. Group I-3 occupancies shall be provided with a fire alarm system installed for alerting staff.

907.2.6.4.1 Initiation. Initiation of the fire alarm system shall be by manual and automatic means. Approved automatic fire detectors shall be installed in laundry and soiled linen rooms, boiler and furnace rooms, mechanical and electrical rooms, shops, laboratories, kitchens, locker rooms, janitors' closets, trash-collection rooms, storage rooms, lounges, gift shops, commissaries and similar areas. Actuation of an automatic fire-extinguishing system, a manual fire alarm box or a fire detector shall initiate an approved fire alarm signal, which automatically notifies staff. Presignal systems shall not be used.

907.2.6.4.2 Manual fire alarm boxes. Manual fire alarm boxes are not required to be located in accordance with Section 907.4 where the fire alarm boxes are provided at staff-attended locations having direct supervision over areas where manual fire alarm boxes have been omitted.

Manual fire alarm boxes are permitted to be locked in areas occupied by detainees, provided that staff members are present within the subject area and have keys readily available to operate the manual fire alarm boxes.

907.2.6.4.3 Smoke detectors. An approved automatic smoke-detection system shall be installed throughout resident housing areas, including sleeping areas and contiguous day rooms, group activity spaces and other common spaces normally accessible to residents.

Exceptions:

1. Other approved smoke-detection arrangements providing equivalent protection, such as placing detectors in exhaust ducts from cells or behind protective grills, are allowed when necessary to prevent damage or tampering.
2. Smoke detectors are not required in sleeping rooms with four or fewer occupants in smoke compartments that are equipped throughout with an approved automatic sprinkler system.

Subp. 23. [F] **Section 907.2.7.** IBC [F] Section 907.2.7 is deleted.

Subp. 24. [F] **Section 907.2.7.1.** IBC [F] Section 907.2.7.1 is deleted.

Subp. 25. [F] **Section 907.2.8.** IBC [F] Section 907.2.8 is amended to read as follows:

907.2.8 Group R-1, general. A fire alarm system shall be installed in accordance with Sections 907.2.8 through 907.2.8.3 in Group R-1 occupancies.

Exceptions:

1. A fire alarm system is not required in buildings not over two stories in height where all individual guest rooms and contiguous attic and crawl spaces are separated from each other and public or common areas by at least one-hour fire partitions and each guest room has an exit directly to a public way, exit court or yard.

2. Buildings containing five or less guest rooms shall be allowed to be equipped with approved multiple-station smoke detectors installed as required for Group R-3 Occupancies. Installation shall be in accordance with Section 907.2.10.

907.2.8.1 Initiation. Initiation of the fire alarm system shall be by automatic means. Approved automatic fire detectors shall be provided in boiler and furnace rooms, shops, laundry rooms, mechanical and electrical rooms, trash collection rooms, storage rooms, gift shops, locker rooms and similar areas. Automatic smoke detectors shall be provided in all common areas and interior corridors serving as required means of egress.

Exception: System fire and smoke detectors are not required when an approved automatic fire extinguishing system is installed throughout the building and manual activation is provided at a constantly attended location.

907.2.8.2 Notification. Activation of the fire alarm system or automatic sprinkler system shall initiate a general evacuation signal.

907.2.8.3 Guest room detectors. Guest room smoke detectors required by Section 907.2.10 shall not be connected to a fire alarm system.

Exception: Connection of such detectors for annunciation only.

Subp. 26. [F] **Section 907.2.9.** IBC [F] Section 907.2.9 is amended, and subsections added, to read as follows:

907.2.9 Group R-2, general. A fire alarm system shall be installed in accordance with Sections 907.2.9 through 907.2.9.2 in Group R-2 occupancies where:

1. Any guest room or dwelling unit is located two or more stories above the story containing the lowest level of exit discharge;

2. Any guest room or dwelling unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit;

3. The building contains more than 16 dwelling units or guest rooms; or

4. The building is used as a dormitory, convent, monastery, fraternity, or sorority and has an occupant load of 20 or more.

Exception: A fire alarm system is not required in buildings not over two stories in height where all dwelling units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least one-hour fire partitions and each dwelling unit has an exit directly to a public way, exit court or yard.

907.2.9.1 Initiation. Initiation of the fire alarm system shall be by automatic means. Automatic fire detectors shall be provided in boiler and furnace rooms, trash-collection rooms, shops, laundry rooms, mechanical and electrical rooms, storage rooms, and similar areas. Automatic smoke detectors shall be provided in all common areas and interior corridors serving as required means of egress.

Exception: System fire and smoke detectors are not required when an approved automatic fire extinguishing system is installed throughout the building.

907.2.9.2 Notification. Activation of the fire alarm system or automatic sprinkler system shall initiate a general evacuation signal.

907.2.9.3 Dwelling unit smoke detectors. Dwelling unit smoke detectors required by Section 907.2.10 shall not be connected to the building fire alarm system.

Exception: Connection of such detectors for annunciation only.

Subp. 26a. **[F] Section 907.2.10.1.4.** IBC Section 907.2.10.1 is amended by adding a subsection to read as follows:

907.2.10.1.4 Fire station and emergency medical quarters. Areas used for sleeping in fire stations and emergency medical and ambulance crew quarters shall be provided with single station smoke detectors in accordance with Section 907.2.10.

Subp. 27. **[F] Section 907.2.10.2.** IBC [F] Section 907.2.10.2 is amended to read as follows:

907.2.10.2 Power source. In new construction, required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. Smoke alarms are not required to be equipped with battery backup in Group R-1 occupancies where they are connected to an emergency electrical system.

2. Smoke alarms are not required to be equipped with battery backup in Group R-2 occupancies equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

Subp. 27a. **[F] Section 907.2.10.5.** IBC [F] Section 907.2.10 is amended by adding a subsection to read as follows:

907.2.10.5 Smoke alarms in arc-fault protected circuits. Smoke alarms receiving their primary power supply from electrical circuits that are protected with arc-fault circuit interruption must have a backup power supply.

Subp. 28. **[F] Section 907.2.** IBC [F] Section 907.2 is amended by adding sections to read as follows:

907.2.24 Residential hospices. A fire alarm system shall be installed in accordance with Section 907.2.24 in residential hospices. When automatic sprinkler systems or automatic fire detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

907.2.24.1 Initiation. Initiation of the fire alarm system shall be by manual and automatic means. Approved automatic fire detectors shall be provided in boiler and furnace rooms, kitchens, laboratories, shops, gift shops, commissaries, laundry and soiled linen rooms, mechanical and electrical rooms, locker rooms, storage rooms, janitors' closets, trash collection rooms, lounges and similar areas. Automatic smoke detectors shall be provided in sleeping rooms, corridors and spaces open to the corridors.

Exception: Manual fire alarm boxes are not required at exits if manual fire alarm boxes are located at all nurses' stations or other continuously attended staff locations, provided such fire alarm boxes are visible and continuously accessible and that travel distances required by Section 907.4.1 are not exceeded.

907.2.24.2 Notification. Activation of the fire alarm system or automatic sprinkler system shall initiate a general evacuation signal. In addition, the fire alarm system shall be monitored by an approved central station service in accordance with Section 903.4.1.

Exception: In lieu of audible notification appliances, visible notification appliances shall be allowed to be used in sleeping areas.

Subp. 29. [Repealed, 32 SR 7]

Subp. 30. **[F] Section 907.9.2.** IBC [F] Section 907.9.2 is amended to read as follows:

907.9.2 Audible alarms. Audible alarm notification appliances shall be provided and shall sound a distinctive sound that is not to be used for any purpose other than that of a fire alarm. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of at least 60 seconds, whichever is greater, in every occupied

space within the building. The minimum sound pressure levels shall be: 75 dBA in Groups R and I-1 occupancies; 90 dBA in mechanical equipment rooms; and 60 dBA in other occupancies. The maximum sound pressure level for audible alarm notification appliances shall be 110 dBA at the minimum hearing distance from the audible appliance. Where the average ambient noise is greater than 105 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall not be required.

Exception: Visible alarm notification appliances shall be allowed in lieu of audible alarm notification appliances in critical care areas of Group I-2 occupancies.

Subp. 31. **[F] Section 907.10.** IBC [F] Section 907.10 is amended, and subsections added, to read as follows:

907.10 Fire safety functions. Automatic fire detectors required by Section 907.2 are to activate notification appliances in accordance with those sections. Where automatic fire detectors are installed for other fire safety functions, they shall perform the intended function upon activation. Where automatic detectors are installed for fire safety functions and the building has a fire alarm system, such detectors shall activate supervisory signals at the fire alarm control panel or at a constantly attended location. Where the building does not have a fire alarm system, such detectors shall activate a visual and audible supervisory signal at an approved location, which shall indicate the source of the signal.

907.10.1 Air distribution and air-handling systems. Smoke detectors installed to shut down the air distribution or air-handling system shall, upon activation, perform the intended function. Air distribution or air-handling equipment that is part of a smoke-control system shall switch to smoke-control mode upon activation of a detector.

907.10.1.1 Fire alarm system interface. Smoke detectors that are installed in air distribution or air-handling systems for shutdown purposes and that are connected to a fire alarm system shall not sound a general evacuation signal.

907.10.2 Elevator control functions. Smoke detectors that are installed to control or recall elevators or to control doors for elevators, elevator lobbies, or elevator shafts and that are connected to a fire alarm system shall not sound a general evacuation signal. Elevator recall and firefighter's emergency operation for elevators shall only be controlled by elevator smoke detectors and shall not initiate upon other building fire detectors or evacuation signals.

907.10.3 Door hold-open functions. Smoke detectors that are installed to hold open fire doors under nonemergency conditions and that are connected to a fire alarm system shall sound a general evacuation signal when the doors being held open are part of the means of egress corridor or stair system. Door hold-open smoke detectors are not required to activate a visual or audible signal.

Subp. 32. **[F] Section 907.11.** IBC [F] Section 907.11 is deleted.

Subp. 33. **[F] Section 907.14.** IBC [F] Section 907.14 is deleted.

Statutory Authority: *MS s 16B.37; 16B.59 to 16B.76; 326B.101 to 326B.194*

History: *27 SR 1474; 32 SR 7; L 2007 c 140 art 4 s 61; art 13 s 4; L 2008 c 337 s 64*

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