

7511.1103 SECTION 1103, FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDINGS.

Subpart 1. **IFC section 1103.1.** IFC section 1103.1 is amended to read:

1103.1 Required construction. Existing buildings shall comply with the minimum provisions specified in Sections 1103.2 through 1106.3.2.1.

Table 1103.1 is deleted.

Subp. 2. **IFC section 1103.2.** IFC section 1103.2 is deleted.

Subp. 3. **IFC section 1103.3.** IFC section 1103.3 is deleted.

Subp. 4. **IFC section 1103.4.** IFC section 1103.4 is amended and sections added to read:

1103.4 Vertical openings. Interior vertical shafts, including stairways, elevator hoistways, and service and utility shafts, that connect two or more stories of a building, shall be enclosed or protected as specified in Section 1103.4.1 and Table 1103.4.

1103.4.1 Fire-resistive-rated construction. Where one-hour fire-resistive rated construction is required by IFC Chapter 11, as amended, it includes equivalent ratings for openings in that construction. When openings are required to be protected, opening protectives shall be maintained self-closing or automatic-closing by smoke detection. Existing fusible-link-type automatic door-closing devices are permitted if the fusible link rating does not exceed 135° F (57° C).

TABLE 1103.4

VERTICAL OPENING PROTECTION REQUIRED

OCCUPANCY CLASSIFICATION	CONDITIONS	PROTECTION REQUIRED
Group I	Vertical openings connecting two or more stories	1-hour protection
All, other than Group I	Vertical openings connecting two stories	No protection required ^{a,b}
All, other than Group I	Vertical openings connecting three to five stories	1-hour protection or automatic sprinklers throughout ^{a,b}
All, other than Group I	Vertical openings connecting more than five stories	1-hour protection ^{a,b}

All	Mezzanines open to the floor below	No protection required ^{a,b}
All, other than Group I	Atriums and covered mall buildings	1-hour protection or automatic sprinklers throughout
All, other than Groups B and M	Escalator openings connecting four or less stories in a sprinklered building. Openings must be protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.	No protection required
Group B and M	Escalator openings in a sprinklered building protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.	No protection required

^a Vertical opening protection is not required for Group R-3 occupancies.

^b Vertical opening protection is not required for open parking garages and ramps.

Subp. 5. **IFC section 1103.** IFC subsections 1103.4.2, 1103.4.3, 1103.4.4, 1103.4.5, 1103.4.6, and 1103.4.7 are deleted.

Subp. 6. **IFC section 1103.5.** IFC section 1103.5 is amended by adding new subsections to read:

1103.5.3 Basement access or sprinkler protection. An approved automatic sprinkler system shall be provided in the following occupancies located in basements when such areas exceed 2,500 square feet (232.3 m²) in size and do not have 20 square feet (1.86 m²) of opening entirely above the adjoining ground level in each 50 lineal feet (15,240 mm) or fraction thereof of exterior wall on at least one side of the building:

1. Group A occupancies used as commercial drinking and dining establishments.
2. Group A occupancies used as bowling alleys.
3. Group E occupancies used for student occupancy.
4. Group I occupancies.
5. Group R-1 and R-2 occupancies having dwelling units or guest rooms.

Openings required by this section shall have a minimum dimension of 30 inches (762 mm).

If any portion of the basement is located more than 75 feet (22.86 m) from required openings, the basement shall be provided with an approved automatic sprinkler system throughout.

1103.5.4 Existing rubbish and linen chutes. Existing rubbish and linen chutes that connect three or more stories shall be protected with automatic sprinklers installed and maintained in conformance with Section 903.2.11.2.

Subp. 7. **IFC section 1103.7.** IFC section 1103.7 is deleted and replaced with the following:

1103.7 Fire alarm systems. An approved fire alarm system shall be installed in existing buildings and structures in accordance with Sections 1103.7.1 through 1103.7.7.

In buildings containing mixed occupancies that are designed as separated uses (see Section 102.11), fire alarm and detection systems need only be installed in those occupancies where required by this section.

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 1103.7 need not be provided. Where Section 1103.7 requires smoke detectors, such protection shall be installed.

1103.7.1 Group A, general. A fire alarm system shall be installed in accordance with Sections 1103.7.1 through 1103.7.1.3.1 in existing Group A occupancies having an occupant load of 300 or more.

1103.7.1.1 Exemptions for Group A. A fire alarm system is not required in Group A occupancies having the following conditions:

1. Assembly areas used solely for worship purposes.
2. A fire alarm system is not required when an approved automatic fire-sprinkler system is installed throughout the building.
3. Assembly uses located inside Group E occupancies shall have alarms as required for the Group E occupancy.
4. A-5 occupancies.

1103.7.1.2 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.

1103.7.1.3 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.

1103.7.1.3.1 Exemption for voice evacuation. 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.

1103.7.2 Group E, general. A fire alarm system shall be installed in accordance with Sections 1103.7.2 through 1103.7.2.4 in existing Group E occupancies having an occupant load of 50 or more.

1103.7.2.1 Exemption for single classroom. A fire alarm system is not required for a building with a maximum area of 1,000 square feet (93 m²) that contains a single classroom and is located no closer than 20 feet (15,240 mm) from another building.

1103.7.2.2 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, custodial closets, trash-collection rooms, storage rooms, lounges, and similar areas.

1103.7.2.2.1 Manual activation. The requirements for manual fire alarm pull boxes can be modified as follows:

1. In buildings equipped 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.

1103.7.2.3 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 ten 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.

1103.7.2.3.1 Sprinkler protection. 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.

1103.7.2.4 Notification. Activation of the fire alarm system or automatic sprinkler system shall initiate a general evacuation signal.

1103.7.3 Group I, general. A fire alarm system shall be installed in accordance with Sections 907.2.6 through 907.2.6.4.2 in existing Group I occupancies.

1103.7.4 Group R-1, general. A fire alarm system shall be installed in accordance with Sections 1103.7.4 through 1103.7.4.4.1 in existing Group R-1 occupancies where:

1. Any sleeping unit or dwelling unit is located two or more stories above the story containing the lowest level of exit discharge.
2. Any sleeping unit 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 20 or more guest rooms or dwelling units.
4. The building is used as a congregate living facility, dormitory, convent, monastery, fraternity, sorority, group home, or shelter and has an occupant load of 20 or more.

1103.7.4.1 Direct exits to exterior. A fire alarm system is not required in buildings that do not have interior corridors serving guest rooms and where each guest room has an exit door opening directly to an exterior exit access that leads directly to the exits.

1103.7.4.2 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.

1103.7.4.2.1 Sprinkler protection. System fire and smoke detectors are not required when an approved automatic fire-extinguishing system is installed in accordance with Section 903.3.1.1 or 903.3.1 and a manual fire alarm box is provided at a constantly attended location. When a constantly attended location is not provided the manual fire alarm box shall be provided at the main exit.

1103.7.4.3 Notification. Activation of the fire alarm system or automatic sprinkler system shall initiate a general evacuation signal.

1103.7.4.4 Guest room smoke alarms. Guest room smoke alarms required by Section 1103.8 shall not be connected to a fire alarm system.

1103.7.4.4.1 Annunciation allowed. Connection of such alarms for annunciation is permitted.

1103.7.5 Group R-2, general. A fire alarm system shall be installed in accordance with Sections 1103.7.5 through 1103.7.5.3 in existing Group R-2 occupancies where:

1. Any sleeping unit or dwelling unit is located two or more stories above the story containing the lowest level of exit discharge;
2. Any sleeping unit 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 sleeping units or dwelling units; or
4. The building is used as a congregate living facility, dormitory, convent, monastery, fraternity, sorority, group home, or shelter and has an occupant load of 20 or more.

1103.7.5.1 Direct exits to exterior. A fire alarm system is not required in buildings that do not have interior corridors serving guest rooms and where each dwelling unit has an exit door opening directly to an exterior exit access that leads directly to the exits.

1103.7.5.2 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, and similar areas. Automatic smoke detectors shall be provided in all common areas and interior corridors serving as required means of egress.

1103.7.5.2.1 Sprinkler protection. System fire and smoke detectors are not required when an approved automatic fire-extinguishing system is installed throughout the building.

1103.7.5.3 Notification. Activation of the fire alarm system or automatic sprinkler system shall initiate a general evacuation signal.

1103.7.5.4 Dwelling unit smoke alarms. Dwelling unit smoke alarms required by Section 1103.8 shall not be connected to the building fire alarm system.

1103.7.5.4.1 Annunciation allowed. Connection of such alarms for annunciation is permitted.

1103.7.6 Audible alarms. Audible alarm notification appliances shall be provided and 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 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.

Subp. 8. **IFC section 1103.8.** IFC section 1103.8 is amended and sections added to read:

1103.8 Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Table 1103.8.

TABLE 1103.8

SMOKE ALARM REQUIREMENTS

Condition:	Location:	Power Supply:	Interconnection Required:
Existing buildings that do not have any smoke alarms (same as new).	In hallways outside sleeping rooms. In sleeping rooms. On each level of the building and in basements. On ceiling or wall (less than 12 inches below ceiling). On center of ceiling above stairways.	If constructed on or after 8/1/1989, smoke alarms are required to be hard-wired (120 volt). If constructed before 8/1/1989, smoke alarms can be battery-powered.	No interconnection is required for battery-powered alarms.
Existing buildings (constructed on or after 8/1/1989).	In hallways outside sleeping rooms. On each level and in basements. On ceiling or wall (less than 12 inches below ceiling).	Smoke alarms are required to be hard-wired (120 volt).	No interconnection is required.
Existing buildings (constructed before 8/1/1989).	In hallways outside sleeping rooms. On each level and in basements. On ceiling or wall (less than 12 inches below ceiling).	Smoke alarms can be battery-powered.	No interconnection is required.
Replacement of smoke alarms in existing buildings.	Smoke alarms must be installed in same locations as originally installed.	Power supply must be the same as the smoke alarms being replaced.	Interconnection must be provided if the smoke alarms being

replaced were
interconnected.

1103.8.1 Replacement of smoke alarms. Single and multiple-station smoke alarms shall be replaced when:

1. They fail to respond to operability tests.
2. They exceed ten years from the date of manufacture.

Smoke alarms shall be replaced with smoke alarms having the same type of power supply.

Subp. 9. **IFC section 1103.9.** IFC section 1103.9 is deleted and replaced with the following:

1103.9 Protection of existing cooking equipment. Approved automatic fire-extinguishing systems shall be provided for the protection of existing commercial-type cooking equipment that produces grease-laden vapors in accordance with Section 904.

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