SECTION 903
AUTOMATIC SPRINKLER SYSTEMS (Part 1)

903.1 General. Automatic sprinkler systems shall comply with this section.

903.1.1 Alternative protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted instead of automatic sprinkler protection where recognized by the applicable standard and approved by the fire code official.

903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

Exception: Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 of the International Building Code or not less than 2-hour horizontal assemblies constructed in accordance with Section 711 of the International Building Code, or both.

903.2.1 Group A. An automatic sprinkler system shall be provided throughout buildings and portions thereof used as Group A occupancies as provided in this section.

For Group A-1, A-2, A-3 and A-4 occupancies, the automatic sprinkler system shall be provided throughout the story where the fire area containing the Group A-1, A-2, A-3 or A-4 occupancy is located, and throughout all stories from the Group A occupancy to, and including, the levels of exit discharge serving the Group A occupancy. For Group A-5 occupancies, the automatic sprinkler system shall be provided in the spaces indicated in Section 903.2.1.5.

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided for fire areas containing Group A-1 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).
2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

4. The fire area contains a multitheater complex.

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for fire areas containing Group A-2 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).

2. The fire area has an occupant load of 100 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for fire areas containing Group A-3 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).

2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for fire areas containing Group A-4 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).

2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

903.2.1.5 Group A-5. An automatic sprinkler system shall be provided for Group A-5 occupancies in the following areas: concession stands, retail areas, press boxes and other accessory use areas in excess of 1,000 square feet (93 m²).

903.2.1.6 Assembly occupancies on roofs. Where an occupied roof has an assembly occupancy with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies, all floors between the occupied roof and the level of exit discharge shall be
equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

Exception: Open parking garages of Type I or Type II construction.

903.2.1.7 Multiple fire areas. An automatic sprinkler system shall be provided where multiple fire areas of Group A-1, A-2, A-3 or A-4 occupancies share exit or exit access components and the combined occupant load of these fire areas is 300 or more.

903.2.2 Ambulatory care facilities. An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation, whether rendered incapable by staff or staff has accepted responsibility for care recipients already incapable.
2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor where such care is provided as well as all floors below, and all floors between the level of ambulatory care and the nearest level of exit discharge, including the level of exit discharge.

903.2.3 Group E. An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 12,000 square feet (1115 m²) in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has not fewer than one exterior exit door at ground level.

903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of
the following conditions exists:

1. A Group F-1 fire area exceeds 12,000 square feet (1115 m²).

2. A Group F-1 fire area is located more than three stories above grade plane.

3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).

4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

903.2.4.1 Woodworking operations. An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain woodworking operations in excess of 2,500 square feet in area (232 m²) that generate finely divided combustible waste or use finely divided combustible materials.

903.2.5 Group H. Automatic sprinkler systems shall be provided in high-hazard occupancies as required in accordance with Table 903.2.5.2.

<table>
<thead>
<tr>
<th>Location</th>
<th>Occupancy Hazard Classification</th>
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<tbody>
<tr>
<td>Fabrication areas</td>
<td>Ordinary Hazard Group 2</td>
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<tr>
<td>Service corridors</td>
<td>Ordinary Hazard Group 2</td>
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<tr>
<td>Storage rooms without dispensing</td>
<td>Ordinary Hazard Group 2</td>
</tr>
<tr>
<td>Storage rooms with dispensing</td>
<td>Extra Hazard Group 2</td>
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<tr>
<td>Corridors</td>
<td>Ordinary Hazard Group 2</td>
</tr>
</tbody>
</table>

Sections 903.2.5.1 through 903.2.5.3.

903.2.5.1 General. An automatic sprinkler system shall be installed in Group H occupancies.

903.2.5.2 Group H-5 occupancies. An automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall be not less than that required under the International Building Code for the occupancy hazard classifications in accordance with Table 903.2.5.2.

Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.
903.2.5.3 Pyroxylin plastics. An automatic sprinkler system shall be provided in buildings, or portions thereof, where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg).

903.2.6 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions:

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities.

2. An automatic sprinkler system is not required where Group I-4 day care facilities are at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.

3. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge and all floors below the level of exit discharge other than areas classified as an open parking garage.

903.2.7 Group M. An automatic sprinkler system shall be provided as required in Chapter 32 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

903.2.7.1 High-piled storage. An automatic sprinkler system shall be provided as required in Chapter 32 in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

903.2.8 Group R. An automatic sprinkler system installed in
accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

903.2.8.1 Group R-3. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-3 occupancies.

[F] 903.2.8.2 Group R-4. Condition 1. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-4 Condition 1 occupancies.

[F] 903.2.8.3 Group R-4. Condition 2. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group R-4 Condition 2 occupancies. Attics shall be protected in accordance with Section 903.2.8.3.1 or 903.2.8.3.2.

[F] 903.2.8.3.1 Attics used for living purposes, storage or fuel-fired equipment. Attics used for living purposes, storage or fuel-fired equipment shall be protected throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

[F] 903.2.8.3.2 Attics not used for living purposes, storage or fuel-fired equipment. Attics not used for living purposes, storage or fuel-fired equipment shall be protected in accordance with one of the following:

1. Attics protected throughout by a heat detector system arranged to activate the building fire alarm system in accordance with Section 907.2.10.

2. Attics constructed of noncombustible materials.

3. Attics constructed of fire-retardant-treated wood framing complying with Section 2303.2 of the International Building Code.

4. The automatic sprinkler system shall be extended to provide protection throughout the attic space.

[F] 903.2.8.4 Care facilities. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in care facilities with five or fewer individuals in a single-family dwelling.

903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:
1. A Group S-1 fire area exceeds 12,000 square feet (1115 m²).

2. A Group S-1 fire area is located more than three stories above grade plane.

3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).

4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).

5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

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The International Code Council, a membership association dedicated to building safety and fire prevention, develops the codes used to construct residential and commercial buildings, including homes and schools. Most U.S. cities, counties and states that adopt codes choose the International Codes developed by the International Code Council.