

**7511.0903 SECTION 903, AUTOMATIC SPRINKLER SYSTEMS.**

Subpart 1. **IFC section 903.2.8.** IFC section 903.2.8 is amended, and subsections added, to read:

**903.2.8 Group R.** An automatic sprinkler system shall be provided in accordance with Section 903.3 in Group R occupancies and townhouses as follows:

1. All Group R-4 occupancies.
2. Group R-1 multiunit resort buildings as defined in Minnesota Statutes, section 157.15, and licensed by the Department of Health shall comply with chapter 1305, the Minnesota Building Code.
3. In other than R-1 multiunit resort buildings, Group R-1 occupancies shall comply with chapter 1305, the Minnesota Building Code.
4. R-2 occupancies shall comply with chapter 1305, the Minnesota Building Code.
5. Townhouses shall comply with chapter 1309, the Minnesota Residential Code.

For the purposes of this section, fire walls, party walls, or attached multiple fire-resistive exterior walls shall only create separate buildings where providing separation from occupancies other than Group R.

**903.2.8.1 Group R-3 or R-4 congregate residences.** An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-3 or R-4 congregate residences with 16 or fewer residents.

**903.2.8.2 State licensed facilities.** Group R-3 or R-4 occupancies containing facilities licensed by Minnesota shall be provided with an automatic sprinkler system as required by the applicable licensing provisions or this section, whichever is more restrictive.

**903.2.8.3 Residential hospice facilities.** An automatic sprinkler system installed in accordance with NFPA 13 shall be provided throughout all buildings with a Group R-3 or Group R-4 fire area containing a residential hospice facility.

**Exception:** An automatic sprinkler system installed in accordance with Section 903.3.1.2 or 903.3.1.3 shall be allowed, provided that all habitable spaces and closets are sprinklered.

Subp. 2. **IFC section 903.2.11.4.** IFC section 903.2.11.4 is amended to read:

**903.2.11.4 Fire protection for exhaust systems.** Where required by the International Mechanical Code, automatic sprinklers shall be provided in ducts having a cross-sectional area of 75 square inches (480 cm<sup>2</sup>) or more and that convey flammable or combustible components or that have the potential for combustible residue build-up on the inside. When sprinkler protection is installed,

means shall be provided to prevent water accumulation in the duct or the flow of water back to a process where the application of water constitutes a serious life or fire hazard.

Subp. 2a. **IFC section 903.3.1.** IFC section 903.3.1 is amended as follows:

**903.3.1 Standards.** Sprinkler systems shall be designed and installed in accordance with Section 903.3.1.1, unless otherwise permitted by Sections 903.3.1.2 and 903.3.1.3 and other chapters of this code, as applicable. Automatic sprinkler systems installed in state-licensed or state-registered facilities shall be installed in accordance with this code and the applicable licensing or registration provisions of Minnesota.

Subp. 3. **IFC Section 903.3.1.2.1.** IFC Section 903.3.1.2.1 is amended to read:

**903.3.1.2.1 Protection of decks and balconies.** Decks and balconies greater than 6 feet (1.8 m) above grade, greater than 4 feet (1.2 m) deep, with an area greater than 40 square feet (3.72 m<sup>2</sup>), and attached to new Group R-1 and R-2 occupancy buildings protected in accordance with Section 903.3.1.2 that are three or more stories in height and with 30 or more units, shall be protected with sprinklers under the balcony or deck framing and under attic eaves when both of the following two conditions exist:

1. The building has an unsprinklered attic; and
2. The building has combustible siding.

Subp. 4. **IFC section 903.3.1.** IFC section 903.3.1 is amended by adding sections to read:

**903.3.1.4 Buildings of undetermined use.** When fire sprinkler systems are required in buildings of undetermined use, they shall be designed and installed to have a sprinkler density of not less than that required for an Ordinary Hazard Group 2 use with a minimum design area of 3,000 square feet (279 m<sup>2</sup>). Use is considered undetermined if not specified at the time a permit is issued. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the owner to upgrade the system to the required density for the new hazard, use or occupancy.

**903.3.1.5 Special sprinkler design criteria.** When fire sprinkler systems are required in areas containing the following uses, they shall be designed and installed to have a sprinkler density of not less than that required for an Ordinary Hazard Group 2 use:

1. Chemistry labs; or
2. Wrestling or gymnastic rooms.

**903.3.1.6 Modifications to sprinkler standards.** The sprinkler installation standards as referenced in Sections 903.3.1.1, 903.3.1.2, and 903.3.1.3 are modified as follows:

**903.3.1.6.1 Hose stream requirements.** When, in the opinion of the fire chief, an adequate alternate water supply for hose stream requirements is provided or available, the water supply requirements for the sprinkler system hose stream demands may be modified.

**903.3.1.6.2 Elevator shafts and equipment.** Sprinkler protection shall not be installed in elevator shafts, elevator pits or elevator machine rooms.

**Exception:** Health care occupancies required to have NFPA 13 systems and are licensed by the Minnesota Department of Health or that participate in Title XVIII (Medicare) or Title XIX (Medicaid) of the Social Security Act.

**903.3.1.6.3 Swimming pools.** Sprinkler protection need not be provided on the ceiling of rooms containing swimming pools when the pool area is used exclusively for swimming purposes and when sprinklers are provided around the perimeter of the pool area.

**903.3.1.6.4 NFPA 13 modifications.** Sections 8.15.8.2, 8.17.2.5, and 22.2.1.1 of NFPA 13 are amended to read:

**8.15.8.2 Linen closets and pantries.** Sprinklers are not required in linen closets and pantries within dwelling units that meet the following conditions:

1. The area of the space does not exceed 12 square feet (1.1 m<sup>2</sup>).
2. The least dimension does not exceed 3 feet (0.9 m).
3. The walls and materials are surfaced with noncombustible or limited combustible materials.
4. The closet or pantry contains no mechanical equipment, electrical equipment or electrical appliances.

**8.17.2.5 Valves.**

**8.17.2.5.1 Fire department connection.** A listed check valve shall be installed in each fire department connection.

**8.17.2.5.1.1 Maximum pipe length.** There shall be a maximum of 25 feet (7.6 m) of pipe between the check valve and the fire department connection inlet.

**Exception:** This maximum shall not apply to the check valve serving a free-standing fire department connection.

**8.17.2.5.1.2 Check valve location.** The check valve shall be located to minimize freezing potential.

**22.2.1.1 Water supply capacity information.** Where a waterflow test is used for the purposes of system design, the test shall be conducted no more than 36 months prior to the working plan submittal.

**903.3.1.6.5 Vestibules.** Sprinkler protection is not required in vestibules that meet all of the following conditions:

1. The vestibule is 225 square feet or less in floor area;
2. The vestibule is of noncombustible or limited combustible construction;
3. The vestibule has glazing allowing vision into vestibule;
4. The vestibule's only purpose is ingress and egress; and
5. The vestibule contains no fueled equipment, flammable or combustible liquids, or furniture. Incidental combustible storage in the vestibule is limited to five cubic feet of material.

**903.3.1.6.6 NFPA 13D sprinkler systems.** Automatic sprinkler systems installed in Group R-3 and R-4 congregate residences and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D. Attached garages in townhouse buildings are required to have one dry head sprinkler located within 5 linear feet of each door installed in the common wall separating the dwelling unit and the attached garage.

Subp. 4a. **IFC section 903.3.8.** IFC section 903.3 is amended by adding a section to read:

**903.3.8 Sprinkler system design pressure safety margin.** For new sprinkler systems or additions to existing sprinkler systems, the available water supply shall exceed the sprinkler system demand, including the hose stream requirements, by 5 psi (0.34 bars) or more.

**Exception:** 13D systems installed in accordance with section 903.3.1.3.

Subp. 5. **IFC Section 903.3.8.** IFC Section 903.3 is amended by adding a section to read:

**903.3.8 Sprinkler system design pressure safety margin.** For new sprinkler systems or additions to existing sprinkler systems, the available water supply shall exceed the sprinkler system demand, including hose stream requirements, by 5 psi (0.34 bars) or more.

Subp. 6. **IFC Section 903.4.** IFC Section 903.4 is amended by adding an exception to read:

8. For existing sprinkler systems, monitoring is required when the number of sprinklers is 100 or more.

Subp. 7. **IFC Section 903.4.4.** IFC Section 903.4 is amended by adding a section to read:

**903.4.4 Valve security.** All valves controlling water supplies for automatic sprinklers shall be locked or secured in the open position.

**Exception:** Valves located in a room or space when access is limited to essential personnel only.

Subp. 8. [Repealed, 40 SR 1437]

**Statutory Authority:** *MS s 299F.011; 326B.02*

**History:** *32 SR 10; 36 SR 1479; 40 SR 1437*

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