

**7511.0905 SECTION 905, STANDPIPE SYSTEMS.**

Subpart 1. **IFC section 905.2.** IFC section 905.2 is amended by adding subsections to read:

**905.2.1 Modification to standards.** In buildings other than high rise that are equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, and a Class I standpipe system, the pipe shall be sized to meet the pressure and flow requirements for the sprinkler system. Such systems shall comply with Sections 905.2.1.1 through 905.2.1.4.

**905.2.1.1 System pipe size.** Pipe sizes for combined portions of the sprinkler and standpipe systems shall not be less than 4 inches (101.6 mm).

**905.2.1.2 System design flow and pressure.** The standpipe shall provide a minimum pressure of 100 psi (6.9 bar) at the uppermost outlet and a minimum flow rate of 250 gpm (946 L/min.) at the two hydraulically most remote hose connections on the standpipe when the standpipe system is supported through the fire department connection. The hydraulic calculations shall be performed between the hydraulically most demanding standpipe hose connection and the fire department connection.

**905.2.1.3 Design pressure.** A maximum design pressure of 150 psi (10.3 bars) is permitted at the fire department connection when the standpipe is supported by local fire department apparatus.

**905.2.1.4 Automatic sprinkler system demand.** The automatic sprinkler system demand, including the inside and outside hose stream demands from NFPA 13, is to be provided by the municipal water supply system without requiring fire department pumping into the system.

Subp. 1a. **IFC section 905.3.** IFC section 905.3 is amended to read as follows:

**905.3 Required installations.** Standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.10. Standpipe systems are allowed to be combined with automatic sprinkler systems.

**Exception:** Standpipe systems are not required in Group R-3 occupancies.

Subp. 1b. **IFC section 905.3.1.** IFC section 905.3.1 is amended to read as follows:

**905.3.1 Height.** Class I wet standpipe systems shall be installed throughout buildings where any of the following conditions exist:

1. Four or more stories are above or below grade plane.
2. The floor level of the highest story is located more than 30 feet (9,144 mm) above the lowest level of the fire department vehicle access.
3. The floor level of the lowest story is located more than 30 feet (9,144 mm) below the highest level of fire department vehicle access.

**Exception:** Class I manual, automatic, or semiautomatic dry standpipes are allowed in buildings that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section 905.5.

**905.3.1.1 Lowest level.** In determining the lowest level of fire department vehicle access, the following areas should not be considered:

1. recessed loading docks for four vehicles or less; and
2. areas where topography makes access from the fire department vehicle to the building impractical or impossible.

Subp. 2. **IFC section 905.3.2.1.** IFC section 905.3.2 is amended by adding a subsection to read:

**905.3.2.1 Group A exhibition.** Class I automatic standpipes shall be provided in Group A-3 occupancies where the floor area used for exhibition exceeds 12,000 square feet (1,115 m<sup>2</sup>).

Subp. 3. **IFC sections 905.3.4, 905.3.4.1.** IFC sections 905.3.4 and 905.3.4.1 are deleted and replaced with the following:

**905.3.4 Stages.** Stages are not required to be equipped with standpipe systems.

Subp. 3a. **IFC section 905.3.6.** IFC section 905.3.6 is amended to read as follows:

**905.3.6 Helistops and heliports.** Each building with a rooftop helistop or heliport shall be equipped with a Class I standpipe system extended to the roof level on which the helistop or heliport is located in accordance with Section 2007.5.

Subp. 4. **IFC section 905.3.** IFC section 905.3 is amended by adding sections to read:

**905.3.9 Detention and correctional facilities.** Regardless of the height of the building or number of stories, every building in a Group I-3 detention and correctional facility, where 50 or more persons are under restraint or security under Occupancy Condition 3, 4, or 5, shall be provided with a Class I automatic wet or semiautomatic dry standpipe system.

**Exception:** Combined systems meeting the provisions of Section 905.2 may be used.

When acceptable to the fire chief, fire department connections may be located inside all security walls or fences on the property.

Standpipes shall be located in accordance with Section 905. In addition, standpipes shall be located so that it will not be necessary to extend hose lines through smoke barriers. When located in cell complexes, standpipes may be located in secured pipe chases.

**905.3.10 Group R-2 occupancies; small hose connections.** Small hose connections shall be installed in Group R-2 occupancies three or more stories in height where any portion of the building's interior area is more than 200 feet (60,960 mm) of travel, vertically or horizontally,

from the nearest point of fire department vehicle access. Small hose connections required by this section shall comply with the following:

1. Supply one 1-1/2-inch (38 mm) fire hose valve at each floor level or intermediate stair landing in each required and enclosed stairway.
2. The water for the small hose connections shall be supplied separately from the sprinkler system protecting that area so that the small hose connections are still functional if the water supply to the sprinkler system is shut down following fire extinguishment.
3. The piping shall be a minimum of 1-1/2-inch (38 mm).
4. The water shall be supplied from a wet-pipe sprinkler system only.
5. The piping shall be comprised of metallic piping and hose valve connections.

Permanent signage shall be required which reads "Fire Department Overhaul Hose Connection" at each connection in the building. If a separate standpipe system is provided, a sign shall also be provided at the exterior fire department connection.

Subp. 5. **IFC section 905.5.1.** IFC section 905.5.1 is deleted.

Subp. 6. **IFC section 905.6.** IFC section 905.6 and all subsections are deleted in their entirety.

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

**History:** *32 SR 10; 40 SR 1437; 44 SR 610*

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