IRC-30, R313.1

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Proposed Code Change - Language

SECTION R313
AUTOMATIC FIRE SPRINKLER SYSTEMS

R313.1 Townhouse automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in townhouses.

Exception: An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed.

R313.1.1 Design and installation. Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with Section P2904.

R313.2 One- and two-family dwellings automatic fire systems. An automatic residential fire sprinkler system shall be installed in one- and two-family dwellings.

Exception: An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system.

When provided, automatic residential fire sprinkler systems shall be designed and installed in accordance with NFPA 13D.

R313.2.1 Design and installation. Automatic residential fire sprinkler systems shall be designed and installed in accordance with Section P2904 or NFPA 13D.

SECTION R302
FIRE-RESISTANT CONSTRUCTION

(Sections proposed for no amendment not shown for clarity and to remain unchanged.)

R302.1 Exterior walls. Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1.

Exceptions:
1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
2. Walls of dwellings and accessory structures located on the same lot.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
4. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.
R302.3 Two-family dwellings. Dwelling units in two-family dwellings shall be separated from each other by wall and/or floor assemblies having not less than a 1-hour fire-resistance rating when tested in accordance with ASTM E 119 or UL 263. Fire-resistance-rated floor-ceiling and wall assemblies shall extend to and be tight against the exterior wall, and wall assemblies shall extend from the foundation to the underside of the roof sheathing.

Exceptions:
1. A fire-resistance rating of ½-hour shall be permitted in buildings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13. Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.
2. Wall assemblies need not extend through attic spaces when the ceiling is protected by not less than 5/8-inch (15.9 mm) Type X gypsum board and an attic draft stop constructed as specified in Section R302.12.1 is provided above and along the wall assembly separating the dwellings. The structural framing supporting the ceiling shall also be protected by not less than 1/2-inch (12.7 mm) gypsum board or equivalent.

R302.4 Dwelling unit rated penetrations. Penetrations of wall or floor/ceiling assemblies required to be fire-resistance rated in accordance with Section R302.2 or R302.3 shall be protected in accordance with this section.

Exception: Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.

R302.5 Dwelling/garage opening/penetration protection. Openings and penetrations through the walls or ceilings separating the dwelling from the garage shall be in accordance with Sections R302.5.1 through R302.5.3.

Exception: Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313. (Note: This would be necessary only if sprinkler heads are required in garages by state amendment.)

R302.6 Dwelling/garage fire separation. The garage shall be separated as required by Table R302.6. Openings in garage walls shall comply with Section R302.5. This provision does not apply to garage walls that are perpendicular to the adjacent dwelling unit wall.

Exception: Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313. (Note: This would be necessary only if sprinkler heads are required in garages by state amendment.)

R302.7 Under-stair protection. Enclosed accessible space under stairs shall have walls, under-stair surface and any soffits protected on the enclosed side with 1/2-inch (12.7 mm) gypsum board.

Exception: Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.

R302.9 Flame spread index and smoke-developed index for wall and ceiling finishes. Flame spread and smoke index for wall and ceiling finishes shall be in accordance with Sections R302.9.1 through R302.9.4.

Exception: Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.
R302.11 Fireblocking. In combustible construction, fireblocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and the roof space.

**Exception:** Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.

R302.12 Draftstopping. In combustible construction where there is usable space both above and below the concealed space of a floor/ceiling assembly, draftstops shall be installed so that the area of the concealed space does not exceed 1,000 square feet (92.9 m²). Draftstopping shall divide the concealed space into approximately equal areas.

**Exception:** Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.

Where the assembly is enclosed by a floor membrane above and a ceiling membrane below, draftstopping shall be provided in floor/ceiling assemblies under the following circumstances:
1. Ceiling is suspended under the floor framing.
2. Floor framing is constructed of truss-type open-web or perforated members.

**SECTION R310**

**EMERGENCY ESCAPE AND RESCUE OPENINGS**

R310.1 Emergency escape and rescue required. Basements, habitable attics and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room. Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches (1118 mm) measured from the finished floor to the bottom of the clear opening. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

**Exceptions:**
1. Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet (18.58 m²).
2. Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.

R310.2 Location. Smoke alarms shall be installed in the following locations:
1. In each sleeping room.

**Exception:** Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.

R310.3 Location. Smoke alarms shall be installed in the following locations:
1. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
2. On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
**Exception:** Dwellings provided with an automatic fire sprinkler system complying with the requirements of section R313.

**Proposed Code Change – Need and Reason**
The installation of sprinkler systems in new homes and townhouses increases the safety levels of the homes and makes these passive systems unnecessarily redundant and costly. This proposal makes the installation of a sprinkler system optional but provides incentives for their installation to offset costs. Many exceptions are granted buildings in the IBC for sprinkler installation (fire-resistive substitution, reductions in separation requirements, increased travel distance, reduction in exiting requirements, exclusion of emergency exit windows). Many of those are included here. Fire sprinkler advocates state that 85% of the time one head extinguishes a fire. The means fires will be extinguished when they are small and before they have an opportunity to spread and thereby further justifying the proposed tradeoffs.

**Proposed Code Change – Cost/Benefit Analysis**
This proposal will result in lowers construction costs as opposed to a sprinkler requirement with no incentives.

**Other Factors to Consider Related to Proposed Code Change**
1. Is this proposed code change meant to:
   - [x] change language contained in a published code book? If so, list section(s).
     R302, R310, and R313
   - [ ] change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
   - [ ] delete language contained in a published code book? If so, list section(s).
   - [ ] delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
   - [ ] neither; this language will be new language, not found in the code book or in Minnesota Rule.

2. Is this proposed code change required by a Minnesota Statute or new legislation? If so, please provide the citation to the Statute or legislation.
   No

3. Will this proposed code change impact other sections of a published code book or of an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
   No

4. Will this proposed code change impact other parts of the Minnesota State Building Code? If so, please list the affected parts of the Minnesota State Building Code.
5. Who are the parties affected or segments of industry affected by this proposed code change?
Home builders, homeowners, building designers.

6. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
No

7. Are you aware of any federal requirement or regulation related to this proposed code change? If so, please list the regulation or requirement.
No