

ADVISORY COMMITTEE COMMENT FORM FOR PROPOSED CODE CHANGES

(This form must be submitted electronically)

IRC-100, MR 1309.0310

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Proposed Code Change - Language

Please provide your proposed code change in ~~strikeout~~/underline format. Provide the *specific* language you would like to see changed, with new words underlined and words to be deleted should be ~~stricken~~. Also, state whether the language contained in your proposal is from a code book or from an amendment currently found in Minnesota Rule. (You may provide the language (electronically) on a separate, attached sheet).

R310.1.5 Replacement windows. Replacement windows installed in buildings meeting the scope of the International Residential Code shall be exempt from the requirements of Sections R310.1, R310.1.1, R310.1.2, and R310.1.3 if the replacement window meets the following conditions:

1. ~~The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for a greater window opening area than the existing window;~~

The replacement window meets the following requirements:

- A. Minimum of 20 inches in width
- B. Minimum of 20 inches in height
- C. Minimum of 648 square inches (4.5 square feet) of clear opening
- D. Maximum of 48 inches maximum from the floor to the sill opening

2. The rooms or areas are not used for any Minnesota state licensed purpose requiring an egress window; and

3. The window is not required to be replaced pursuant to a locally adopted rental housing or rental licensing code

Proposed Code Change – Need and Reason

Please provide a thorough explanation of the need for this change and why this proposed code change is a reasonable change. During the rulemaking process, the Agency must defend the

need and reasonableness of all its proposed changes. The Agency must submit evidence that it has considered all aspects of the proposal. (You may provide the need and reason (electronically) on a separate attached sheet).

This proposal would establish minimum window dimensions for emergency escape windows in existing buildings when replacement windows are being installed. The Minnesota State Fire Code requires sleeping rooms below the fourth floor in existing residential structures to have an approved emergency escape window with several exceptions.

The current IRC language was an attempt to provide guidance for window sash replacement that would reduce the required opening size; unfortunately the result has been to cause a conflict between the two codes, confusion in the regulatory industry and additional costs for homeowners. The most common scenario is when a homeowner has replacement windows installed, a permit is acquired and the replacements are installed per the current IRC language. Sometime later a fire inspector is involved, typically for a foster care or day care license, discovers the non-complying window and orders that a complying escape window be installed. The result is the homeowner pays for this window twice.

The State Fire Marshal's Code Advisory Panel routinely hears variance requests for the size of egress windows. In the vast majority of cases, if the window style was simply changed from double hung to casement the problem would be solved and the window would easily comply with the escape window requirements. However, when a homeowner has recently replaced their windows with what they thought was code-complying replacements, they are understandably upset with needed to replace these again.

Recognizing this conflict, a State Fire Marshal Supervisor, Glen Bergstrand, organized a working group to discuss this problem, review options and develop solutions. The group included several Deputy State Fire Marshals, the City of St. Paul Fire Marshal, Rich Lockrem from DLI, John Tilton the State Louis Park Building Official, Mark Mikkelsen and Steve Johnson from Andersen Windows. The group met numerous times. After much discussion the group consensus was that some type of secondary means of egress should be provided from sleeping areas (emergency escape window), the window is primarily for occupant escape, and the codes should be consistent.

The next question was what is the absolute minimum size window opening that would still afford a reasonable level of life safety? To that end, Andersen Windows set up several mock-ups of various dimensions that could be tried. The 4.5 square feet and minimum dimension of 20 inches was a result of this research.

4.5 square feet as a minimum was settled on because this was the minimum dimension for escape windows in the NFPA Life Safety Code prior to the early 1970's. Also, in the mock-ups and tests conducted at Andersen Windows, full size adults were able to egress through windows of 4.5 square feet with a minimum dimension of 20 inches when located 48 inches or less above the floor.

A similar change is being proposed for the state fire code. The state fire code currently allows 4.5 square foot escape windows with a 20 inch minimum dimension in certain existing occupancies as this was the size allowed when the first state fire code was adopted.

Proposed Code Change – Cost/Benefit Analysis

Please consider whether this proposed code change will increase/decrease costs or indicate that it will not have any cost implications and explain how it will not. If there is an increased cost, will this cost be offset somehow by a life safety or other benefit? If so, please explain. Are there any cost increases/decreases to enforce or comply with this proposed code change? If so, please explain. (You may provide the cost/benefit analysis (electronically) on a separate, attached sheet).

While in some cases there could be a slight increase in using a different type of window this cost would be offset by the possibility of needing to replace the window a second time. More importantly this will be offset by a minimum and reasonable level of safety.

Other Factors to Consider Related to Proposed Code Change

1. Is this proposed code change meant to:

change language contained in a published code book? If so, list section(s).

change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
1309.0310

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.
no

5. Who are the parties affected or segments of industry affected by this proposed code change?
Building Inspectors, Fire Inspectors, Contractors, Homeowners

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