

**ADVISORY COMMITTEE COMMENT FORM
FOR PROPOSED CODE CHANGES**
(This form must be submitted electronically)

IRC-11, R323.1 (REV 2-17-2012)

Author/requestor: **1309 Committee (2-14-2012 meeting)**

Email address:

Telephone number:

Firm/Association affiliation, if any:

Proposed Code Change - Language

**SECTION R323
STORM SHELTERS**

R323.1 General. This section applies to the construction of storm shelters when constructed as separate detached buildings or when constructed as safe rooms within buildings for the purpose of providing safe refuge from storms that produce high winds, such as tornados and hurricanes. In addition to other applicable requirements in this code, storm shelters shall be constructed in accordance with ICC/NSSA 500.

Proposed Code Change – Need and Reason

Section R323.1 is a new addition to the 2012 IRC. This section intends to make sure that if a storm shelter or safe room is built it will provide “safe refuge from storms that produce high winds, such as tornados and hurricanes.” Storm shelters are separate detached buildings; safe rooms are rooms inside a dwelling usually a bath room , walk-in closet, or utility room that are reinforced to withstand high winds and wind borne debris. R323.1 of the 2012 IRC does not require IRC dwellings to include a storm shelter or safe room. But if a homeowner or builder decides to build a safe room this new section of the code makes sure they are built to the specifications of ICC/NSSA 500.

ICC/NSSA 500 is co-published by the International Code Council and the National Storm Shelter Association. It is a technical document that has precise requirements for safe rooms in Minnesota homes designed to resist tornados. For instance, the walls and doors of a Minnesota safe room meeting ICC/NSSA 500 must withstand wind gusts of 250 mph and horizontal wind borne debris of 100 mph. To meet this design standard, safe room designs or its components are tested and pass the projectile test by launching a 15 lb. 2x4 at 100 mph at the safe room’s walls and doors.

Sometimes new code language written with the best intentions produces the exact opposite effect when enforced in the “real world” of construction. The new safe room amendment is an example. The Minnesota State Building Code’s wind speed design is 90 mph. A new house built in compliance with the Minnesota State Building Code is not designed to withstand very rare tornados or extreme

straight line winds. The code addresses the most common types of wind speeds in Minnesota at a reasonable cost for all homeowners.

Very infrequently a homeowner will ask their builder or remodeler to install a room to help protect their family from tornados or other severe wind storms. The builder will add reinforced walls to a bathroom, walk-in closet or utility room using building techniques recommended by the Federal Emergency Management Agency. These added safety features significantly increase the likelihood that family members will survive a severe weather event if they have enough warning to be in the safe room when the storm hits. These rooms currently built to protect Minnesotans from severe weather would not be consider “safe rooms” because they would not meet all of the ICC/NSSA 500 standards required by R323.1, only some of them. Why? Because the vast majority of homeowners are unwilling to pay for the following upgrades required by the ICC/NSSA 500 standard:

- 3 - grade 1 commercial deadbolts with 1” bolt throws
- A 12 gauge welded steel door frame with welded mitered corners and 7 gauge lock reinforcements
- 5 anchor points at each jamb and 3 points of attachment to frame stiffeners in the door head
- A steel door with a 14 gauge skin and a honeycomb core or equivalent
- 2-4 square inches of natural ventilation per occupant
- A minimum of 3 sq. ft. of area for each occupant.

In fact, this new code amendment would require a building code official to enforce every provision of ICC/NSSA 500 if it looks like a homebuilder or remodeler’s plans include reinforced walls in one room in a house. The result? Homeowners will never ask to include a “safer room” in their home because they are unwilling to upgrade to a ICC/NSSA 500 certified “safe room.” This code section should be deleted to allow Minnesotans to choose safer construction plans without requiring the absolute safest room that could be constructed.

This proposal is necessary because it allows a homeowner to install certain elements to make their homes safer without the need to upgrade the home to a standard that is not required in the first place. The proposal is reasonable because it still permits safer elements and encourages uniformity.

Proposed Code Change – Cost/Benefit Analysis

This proposal will reduce the cost of construction.

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).

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

2012 IRC section R323

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?

Code officials, building designers, contractors, building owners

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