

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

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1303 - #14

Proposed Code Change - Language

Concrete joints. All control joints, isolation joints, construction joints, or any other joints in a concrete slabs or between a slabs and a foundation walls shall be sealed. Gaps and joints shall be cleared of loose material prior to sealing.

Proposed Code Change – Need and Reason

This section of the draft rule requires that various joints in the floor slab be “sealed”. The term “sealed” is not defined so there is little given in the way of direction for any user of the rule. The EPA booklet “Build Radon Out” gives some perspective on the need to “seal” these joints. The text found on page 51 follows:

Seal control joints

Control joints in the concrete slab, whether they are saw cut or made with grooving tools, should be cleaned and filled with caulk. Even if they are not cracked initially, they will likely develop cracks in the future and caulking them before the floor finishes are in place makes sense. A gun-grade polyurethane or a flowable polyurethane can be used. This seal does not interfere with the expansion of the control joint, but does block radon entry.

The presumption advanced by the EPA booklet is that these joints, even if not initially cracked, will eventually crack and “caulking them before the floor finishes are in place makes sense”.

However, the EPA booklet also states that one purpose for installing the soil gas membrane (plastic sheeting), is that it can bridge cracks that develop in the floor. This is stated on page 42 of the booklet.

Laying plastic sheeting between the gas permeable layer and the concrete slab or floor assembly serves several important purposes. The sheeting can prevent concrete from flowing down and clogging the gas permeable layer. It can also bridge any cracks that may develop in the slab or floor assembly, thereby reducing soil gas entry. Finally, the plastic sheeting can act as a vapor barrier to reduce moisture and other soil gas entry into the home.

If the plastic serves to bridge cracks, installing a sealant in the joints at time of construction is redundant and unnecessary. The plastic will always be there. My argument is that the radon doesn't know what kind of crack it is trying to penetrate so that it cannot be more aggressive with a construction joint than it can with a crack due to shrinkage or expansion.

Also, I have received complaints from new homeowners that the sealant used in the joints in basement floors is slow to cure and that it gets on shoes and tracked all over the home. Clearly this is not an acceptable situation.

If the home has a crawl space, the plastic sheeting only need be overlapped by twelve inches. It is not required to be sealed. It is therefore unreasonable to seal a joint in a concrete floor over a plastic sheet when laps in the sheet do not need any special treatment when there is no floor. There just is no reasonable explanation that can be given

Therefore, it is necessary that this section of the draft rule be deleted.

This proposal is reasonable because sealing the joints is redundant given the language in the EPA booklet and laps in plastic sheeting need not be sealed when there is no floor.

Proposed Code Change – Cost/Benefit Analysis

This proposal will have no impact on 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).

delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
Radon rules

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