

PROPOSED CHANGE

NBC05-DivB-09.16.02.01.-replace-HSB-radon_exception_ed.doc

MODIFICATION PROPOSÉE

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Comment

Commentaires

Document	NBC 2005 CNB	Document
Provision	9.16.2.1.	Exigence
Committee	ES-HSB Joint Task Group on Protection Against Radon Ingress	Comité
Minutes	TG 3 rd meeting	Procès-verbaux

EXISTING PROVISION

9.16.2.1. Required Installation of Granular Material

1) Except as provided in Sentence (2), not less than 100 mm of coarse clean granular material containing not more than 10% of material that will pass a 4 mm sieve shall be placed beneath floors-on-ground. (See Article 9.13.4.6. and A-9.13.4.6. in Appendix A.)

- 2) Granular material need not be installed under
- slabs in garages, carports or accessory *buildings*,
 - buildings of industrial occupancy* where the nature of the process contained therein permits or requires the use of large openings in the *building* envelope even during the winter, or
 - buildings* constructed in areas where it can be demonstrated that *soil* gas does not constitute a hazard.

PROPOSED CHANGE

Replace Sentences 9.16.2.1.(1) and (2) as follows:

Other Code Provisions Affected: None

9.16.2.1. Required Installation of Granular Material

1) Except as provided in Sentence (2), not less than 100 mm of coarse clean granular material containing not more than 10% of material that will pass a 4 mm sieve shall be placed beneath floors-on-ground. (See [Article 9.13.4.6.](#) [Subsection 9.13.4.-2010](#) and [related Appendix Notes A 9.13.4.6.](#) in Appendix A.)

- 2) Granular material need not be installed under
- slabs in garages, carports or accessory *buildings*, or
 - buildings of industrial occupancy* where the nature of the process contained therein permits or requires the use of large openings in the *building* envelope even during the winter. ~~or~~
 - ~~*buildings constructed in areas where it can be demonstrated that soil gas does not constitute a hazard.*~~

RATIONALE

Problem

General

See the Summary of Significant Proposed Changes to NBC Parts 5, 6 and 9.

Technical

- The testing of soil is not a reliable indicator to predict indoor concentrations of radon and other soil gases. The exemption in Clause (c) cannot therefore be applied because it is virtually impossible to demonstrate that soil gas does not constitute a problem before construction is completed and a test is performed inside the building (which is after the granular material, if required, would have been installed).
- The exemption in Clause 9.26.2.1.(2)(c) is not consistent with other proposed changes for radon.

Justification – Explanation

General

See the Summary of Significant Proposed Changes to NBC Parts 5, 6 and 9.

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Technical

- The proposed deletion of Clause 9.16.2.1.(2)(c) brings Article 9.16.2.1. in line with the proposed changes for radon in Subsection 9.13.4.-2010.
- The proposed changes in 9.13.4.-2010 reverse the burden of proof (to demonstrate that radon is not a hazard) and link additional measures for protection from radon ingress to actual risk established by an authority having jurisdiction.
- In many regions of Canada, providing granular fill under floor slabs has been accepted good practice for a long time.

Cost implications

There are few locations in Canada where granular material under the slab is not already accepted good practice. In these areas, the proposed change will be cost-neutral.

In the very few areas in Canada where radon problems can be reliably excluded and where providing granular fill is not already accepted good practice, the cost increase of this proposed change would be in the range of \$200 to \$500 for a 1000 ft² slab, depending on selected fill and on the trucking distance.

Enforcement implications

The proposed deletion facilitates enforcement because it removes conflicting information.

Who is affected

Builders, contractors, suppliers, building officials.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION

Provision: 9.16.2.1.(1)	Analysis: Unchanged
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OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION

Provision: 9.16.2.1.(2)	Analysis:
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Attributions

N/A

Objective

N/A

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