

## PROPOSED CHANGE

NBC05-DivB-09.18.06.02.-replace-HSB-lap\_and\_seal\_SC\_ed.doc

## MODIFICATION PROPOSÉE

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### Comment

### Commentaires

Document	NBC 2005 CNB	Document
Provision	9.18.6.2.	Exigence
Committee	ES-HSB Joint Task Group on Protection Against Radon Ingress	Comité
Minutes	TG 3 <sup>rd</sup> meeting, TG 4 <sup>th</sup> meeting	Procès-verbaux

### EXISTING PROVISION

#### 9.18.6.2. Ground Cover in Heated Crawl Spaces

**1)** Where a crawl space is heated, a ground cover consisting of not less than 0.15 mm polyethylene sheet conforming to CAN/CGSB-51.34-M, "Vapour Barrier, Polyethylene Sheet for Use in Building Construction," shall be provided.

- 2)** The ground cover required in Sentence (1) shall
- have its joints lapped not less than 300 mm, and sealed and weighted down, or
  - be covered with a concrete skim coat not less than 50 mm thick.

**3)** The perimeter of the ground cover required in Sentence (1) shall be sealed to the *foundation* wall. (See A-9.13.4., A-9.13.4.3., 9.13.4.5. and 9.13.4.7., and A-9.13.4.5.(1) and (2) in Appendix A.)

### PROPOSED CHANGE

**Replace** Sentences 9.18.6.2.(1) to (3) and **Add new** Sentence 9.18.6.2.(4) as follows:

**Other Code Provisions Affected: None**

#### 9.18.6.2. Ground Cover in Heated Crawl Spaces

**1)** Where a crawl space is heated, a ground cover consisting of not less than 0.15 mm polyethylene sheet conforming to CAN/CGSB-51.34-M, "Vapour Barrier, Polyethylene Sheet for Use in Building Construction," shall be ~~provided~~ installed as part of an air barrier system in accordance with Subsection 9.25.3.-2010.

- 2)** The ground cover required in Sentence (1) shall have its joints lapped not less than 300 mm, and
- be sealed and evenly weighted down, or
  - be covered with ~~a~~ concrete ~~skim coat~~ not less than 50 mm thick.

**3)** The perimeter of the ground cover required in Sentence (1) shall be sealed to the *foundation* wall. (See A-9.13.4., ~~A-9.13.4.3., 9.13.4.5. and 9.13.4.7.~~ A-9.25.3.4. and 9.25.3.6.-2010, and ~~A-9.13.4.5.(1) and (2)~~ A-9.25.3.6.(2) and (3)-2010 in Appendix A.)

**4)** All penetrations of the ground cover required in Sentence (1) shall be sealed against air leakage. (See Subsection 9.25.3.-2010.)

### RATIONALE

#### Problem

#### General

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

#### Technical

The current requirements are not consistent with the air barrier requirements in Subsection 9.25.3. regarding the sealing of penetrations through the air barrier, which may have adverse implications for the protection against radon ingress.

#### Justification – Explanation

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### General

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

### Technical

The proposed change makes the installation of ground cover in heated crawl spaces consistent with the air barrier requirements in Subsection 9.25.3., thus providing the same level of protection against radon ingress.

### **Cost implications**

The proposed change would increase the cost of providing ground cover in heated crawl spaces. The increase would be the cost of sealing penetrations through the plastic sheets (pipes, cables, etc) with caulking. The incremental cost depends on the number of penetrations through the floor but can be classified as minor cost increase in typical Part 9 buildings.

### **Enforcement implications**

The proposed change can be enforced with the tools currently available and within the existing infrastructure.

### **Who is affected**

Builders, contractors, building officials.

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#### **OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION**

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**Provision:** 9.18.6.2.(1)

**Analysis:** Unchanged

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#### **OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION**

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**Provision:** 9.18.6.2.(2)

**Analysis:** Unchanged

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#### **OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION**

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**Provision:** 9.18.6.2.(3)

**Analysis:** Unchanged

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#### **OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION**

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**Provision:** [9.18.6.2.\(4\)](#)

**Analysis:** New

**Attributions**

[\[F40,F61-OH1.1\]](#)

**Objective**

[OH1 Indoor Conditions](#)

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#### **OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISION**

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**Provision:** 9.18.6.2.(4)

**Analysis:** New

**Attributions**

[\[F61-OS2.3\]](#)

**Objective**

[OS2 Structural Safety](#)

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