

Bulletin #2026 – 02

March 4, 2026

Radon Mitigation Requirements

Radon is a naturally occurring radioactive gas that emanates from the ground and can enter and accumulate in buildings. Radon gas is found in every building in Canada at some level.

Radon exposure is the leading cause of lung cancer after smoking, and accounts for an estimated 16% of lung cancer deaths in Canada, per Health Canada. Radon risk reduction is easy to address through testing and mitigation. Simple tests involve placing a long-term radon detector in the lowest lived-in level of a building. There are relatively inexpensive and very effective ways to reduce radon exposure in homes and buildings with high radon levels, that is, over the Canadian radon guideline of 200 Bq/m³. (becquerels per cubic metre)

Information and mapping can be found at www.canada.ca (search: Radon)

New Homes

In Ontario new homes come with a warranty that is provided by the builder and backed by Tarion. The warranty covers radon gas levels exceeding 200 Bq/m³ in new homes for seven years from the date of occupancy.

Existing Homes

Radon mitigation requirements do not apply to existing dwellings or retrofits for secondary dwelling units. If a homeowner wishes to conduct voluntary testing and mitigation, it is recommended they contact a Canadian National Radon Proficiency Program (C-NRPP) at 1-855-722-6777, go to www.c-nrpp.ca or email radon@hc-sc.gc.ca.

New Construction and Additions

Required Inspections

The property owner or builder shall arrange for the following inspections:

1. Installation of the rough-in soil gas pipe and granular material prior to pouring the basement slab. The inspection will be conducted during the Inside sanitary and storm inspection.
2. Installation of soil gas barrier on foundation wall (bituminous damp proofing) and under floor slab (6 mil polyethylene) prior to covering or pouring the basement slab. Once the floor is poured, the inspection will be conducted during the Insulation inspection to confirm the poly under/around the slab.
3. Sealing of the perimeter of the slab adjacent to the foundation wall and any slab penetrations (polyurethane caulking) prior to covering. The inspection will be conducted during the Occupancy/Interior inspection.

4. Pipe cap and labelling and inline fan installation (where required) prior to occupancy. Inspection will be conducted during the Occupancy/Interior inspection.

Radon Gas Testing

Depending on the radon gas mitigation option chosen by the builder, the building may be subject to mandatory radon gas testing.

It is the property owner's responsibility to conduct radon gas testing.

All radon testing will consist of long-term tests (minimum 91 days) completed during the winter season (October to April), when windows and doors are generally closed, and are recommended to be carried out by a Canadian National Radon Proficiency Program (C-NRPP) certified professional.

Testing Results

Where mandatory radon gas testing results come back above 200 Bq/m³ (becquerels per cubic metre), the property owner is to:

1. Install an active subsoil depressurization system, OBC Reference: Subsection 3.2., Sentence (9) of Supplementary Standard SB-9.
2. Ensure any resultant decrease in soil temperature will not adversely affect the foundation - documentation to this effect is to be provided by a qualified person.
3. Submit test results indicating levels below 200 Bq/m³ to the Town of Whitby.

Health Canada recommends hiring a professional certified under the Canadian National Radon Proficiency Program (C-NRPP), as lowering radon levels in a home requires specific technical knowledge and skills to ensure the job is done properly.

Where to find a list of certified professionals? Contact the Canadian National Radon Proficiency Program (C-NRPP) at 1-855-722-6777, go to www.c-nrpp.ca or email radon@hc-sc.gc.ca.

Installation Methods

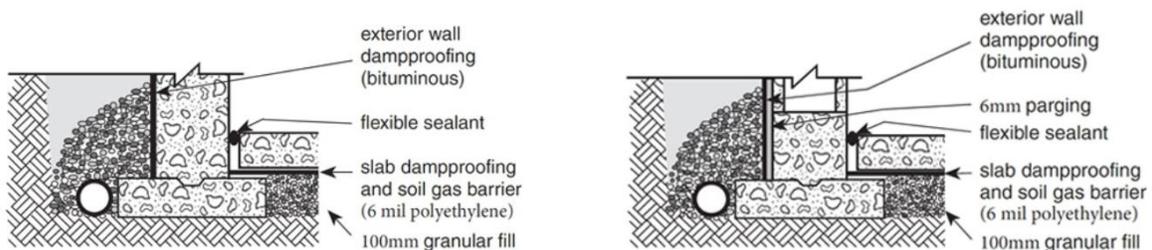
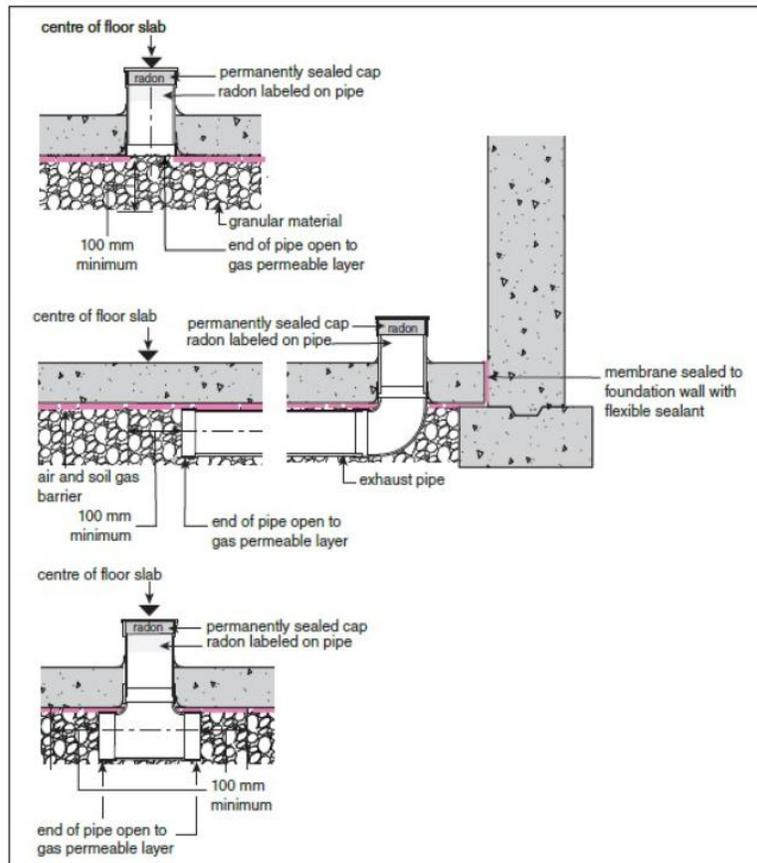
Option 1: Rough-in for Subfloor Depressurization System

1. A 100 mm diameter grey PVC pipe rough-in, OBC Reference: 9.13.4.3 1(b) & (3), of Division B.
2. Minimum 100mm granular material installed below the slab. OBC Reference: 9.13.4.3. (3), of Division B.
3. The upper end of the pipe shall be provided with a permanent cap and labeled to indicate for "Radon Gas Removal Only", and the pipe is to be labelled every 1.8m, if applicable and at every change in direction. OBC Reference: 9.13.4.3. (3), of Division B.
4. A soil gas barrier shall be provided on the foundation walls (bituminous damp proofing). OBC Reference: Sentence 9.13.4.2.(1), of Division B
5. Under the basement floor slab using 6 mil polyethylene lapped not less than 300 mm. OBC Reference: 3.1.(2), of Division B.
6. Sealing along the perimeter of the basement floor slab and at all penetrations using flexible sealant (polyurethane caulking). OBC Reference: 3.2. of Supplementary Standard SB-9

Example: A-9.13.4.3. (2)(b) and (3)(b)(i) Effective Depressurization.

To allow effective depressurization of the space between the air barrier and the ground, the extraction opening (the pipe) should not be blocked and should be arranged such that air can be extracted from the entire space between the air barrier and the ground. This will ensure that the extraction system can maintain negative pressure underneath the entire floor (or in heated crawl spaces underneath the air barrier). The arrangement and location of the extraction system inlet(s) may have design implications where the footing layout separates part of the space underneath the floor.

Acceptable configurations for the extraction opening in a depressurization system



Option 2: Active Subfloor Depressurization System

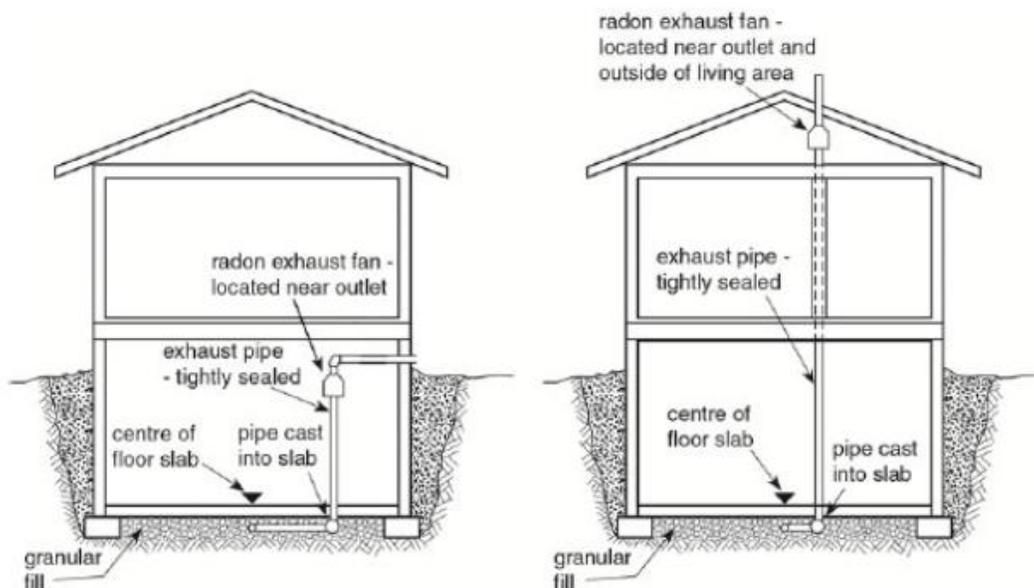
1. A soil gas barrier shall be provided on the foundation walls (bituminous dampproofing), OBC Reference: Sentence 9.13.4.2.(1), of Division B, and Figure SB-9A or SB-9B of Supplementary Standard SB-9
2. Installation of a sub-slab depressurization system installed in accordance with Health Canada guideline “Reducing Radon Levels in Existing Homes: A Canadian Guide for Professional Contractors”,
3. A properly labelled 100 mm grey PVC pipe shall be installed through the floor slab adjacent an exterior wall extending under the slab into a centrally located 100 mm thick bed of granular material, and OBC Reference: Subsection 3.2., 9.13.4.3(3)(a)(b) of Supplementary Standard SB-9C
4. Above the slab, 100 mm grey PVC piping shall be installed, extending either through the roof or the rim joist, and shall have a continuous duty centrifugal inline radon fan.

Example: Active Subfloor Depressurization System

OBC Reference: Subsection 3.2., Sentence (9) of Supplementary Standard SB-9

This installation, depending on the radon gas mitigation option chosen by the builder, the building may be subject to mandatory radon gas testing.

All radon testing will consist of long-term tests (minimum 91 days) completed during the winter season (October to April), when windows and doors are generally closed, and are recommended to be carried out by a Canadian National Radon Proficiency Program (C-NRPP) certified professional.



Please disseminate this information to all site offices.

Thank you for your cooperation in implementing this important change.

The Town of Whitby
Building Services Division
building@whitby.ca
905-430-4305

Disclaimer Notice

The Town of Whitby assumes no responsibility for any errors and is not liable for any damages of any kind resulting from the use of, or reliance on, the information contained in this document. The Town of Whitby does not make any representations or warranty, express or implied, concerning the accuracy, quality, likely results or reliability of the use of the information contained in this document.