



RADON Protection

Part 9 Residential: Subfloor Depressurization System OBC 2024, 9.13.4

Introduction:

Radon is a colourless, odourless, radioactive gas that occurs naturally. It is found to varying degrees as a component of soil gas in all regions of Canada and is known to enter dwelling units by infiltration into basements and crawl spaces. The presence of radon in sufficient quantity can lead to an increased risk of lung cancer.

All wall, roof, and floor assemblies in contact with the ground shall be constructed to resist the leakage of soil gas from the ground into the building in accordance with Subsection 9.25.3. or MMAH Supplementary Standard SB-9, "Requirements for Soil Gas Control."

Technical Information:

- **Exhaust Pipe:**
The exhaust pipe size is to be a minimum of **100mm (4")**.
- **Air Barrier:**
Air barrier properties shall conform with **CAN/ULC-S742** (e.g., 6 mil poly **CAN/CGSB 51.34 M**). The air barrier should extend the full length of the floor with all edges and penetrations sealed. Maintain the integrity of the air barrier system.
- **Granular Material:**
Not less than **100 mm (4")** of coarse clean granular material must be placed beneath floors on the ground.
- **Pipe Location:**
The end of the pipe must be located in the center of the floor with at least **100mm (4")** of granular material beyond the end of the pipe and no obstructions within **100mm (4")**.
- **Granular Material at Pipe Center:**
The granular material at the center of the floor (end of pipe) shall be:
 - Not less than **150 mm (6")** deep, and
 - Not less than **300 mm (12")** centered on the end of the pipe.
- **Labeling:**
The pipe must be clearly labeled to indicate that it is intended only for the removal of radon from below the floor slab.



2024 Ontario Building Code Info Sheet

Additional Information:

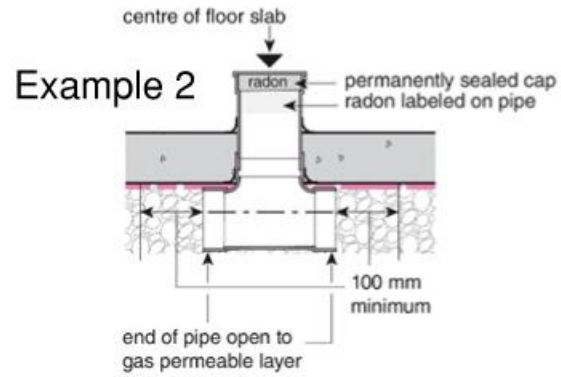
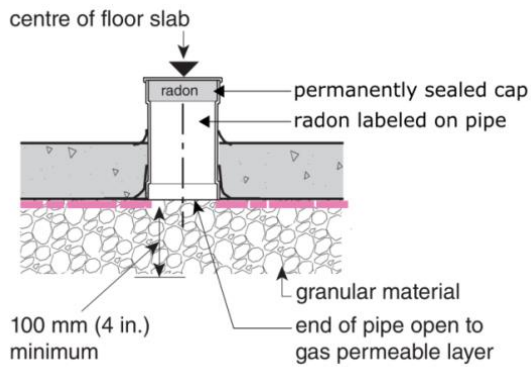
- **Penetrations:**
Ensure all penetrations are sealed (e.g., floor drain, shower drain, sump pit, sewage pit, stack, etc.).
 - **Air Barrier System (Flexible Sheet Material):**
If the air barrier system consists of flexible sheet material (e.g., 6 mil poly), all joints must be sealed with compatible materials such as tape or flexible sealant. The continuity of the air barrier system must extend throughout the basement.
 - **Exhaust Pipe Above Floor:**
The length of the exhaust pipe above the floor must accommodate a future connection with an air-type cap.
 - **Labeling of the Pipe:**
The pipe must be clearly labeled near the cap and, if applicable, every **1.8 m** and at every change in direction to indicate that it is intended only for the removal of radon from below the floor slab.
(See page 2 for example wording.)
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Required Inspections:

1. **Air Barrier Inspection:**
Inspect the air barrier below the floor slab prior to the concrete pour to ensure continuity and that all penetrations are sealed at required pipe.
2. **Final Inspection:**
Perform a final inspection to ensure that the cap is labeled.

Examples of Rough ins:

Example 1



Example 3

