

Radon Gas Mitigation Strategy

Due to recent findings from a study conducted by Kingston, Frontenac Lennox and Addington (KFL&A) Public Health, the Town of Greater Napanee is implementing soil gas control measures in new construction and additions of low-rise residential buildings.

The strategy applies to all building permits applied for after November 1, 2019.

Please note that the radon mitigation strategy does not contain provisions for existing buildings. The Ontario Building Code regulates new construction only and **does not** contain retrofit requirements for radon gas. As a result, the strategy is only able to address radon gas mitigation in new construction.

Owners of existing buildings should contact KFL&A Public Health, Health Canada or Tarion to learn more about the health effects of radon gas, or to learn more about their options for radon gas testing and mitigation.

What is radon gas?

Radon is a colourless, odourless and tasteless gas that is formed naturally by the radioactive breakdown of uranium contained in soil and rock. Radon usually escapes from the ground into the air where it mixes with fresh air resulting in concentrations too low to be of concern. However, when radon enters an enclosed space through cracks and holes in floors and foundations in a building, it can accumulate to higher concentrations.

Canada's radon guideline is currently 200 becquerels per cubic metre (Bq/m³), and [Health Canada guidelines](#) dictate that radon gas concentrations above 200 Bq/m³ require remediation.

Radon gas in Lennox and Addington

Recent results from residential surveys completed by KFL&A Public Health released August 12, 2019 indicate 23.5 per cent of the 227 randomly tested buildings within Lennox and Addington exceed Canada's recommended guideline for radon gas of 200 Bq/m³.

Radon gas testing

All radon gas testing will consist of long-term tests (minimum 91 days) completed during the winter season, between October and 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.

You will need to purchase a testing device and place it in your basement or lowest occupied floor level the first winter after occupancy. Testing kits can be dropped off at KFL&A Public Health or sent back to the company directly using pre-paid postage. You should then receive your test results approximately 2 weeks from when it was sent in.

Depending on the soil gas control option chosen by the builder, the building may be subject to mandatory or voluntary radon gas testing requirements. Although all new homes are not subject to mandatory testing, Health Canada recommends that all buildings be tested for radon gas.

It is the owner's responsibility to have the mandatory radon test conducted and submit the results to Greater Napanee's Building Department.

Test results

Where mandatory radon gas testing results come back over 200 Bq/m³, the building owner will be responsible for remediation work.

All new homes in Ontario come with a new home warranty that is provided by your builder and backed by Tarion. This warranty also covers excessive radon gas levels in new homes for seven years from the date of occupancy.

New Homes and Residential Additions

As part of the Radon Gas Mitigation Strategy, all new construction and additions to low-rise residential dwellings will require soil gas control measures in compliance with 9.13.4., and SB-9 of the Ontario Building Code.

The Soil Gas Mitigation Strategy document provides an explanation of each of the three options below:

Options for new home owners

If your builder chooses **Option 1**, the builder or their representative should point out the radon gas pipe on your pre-delivery inspection (PDI). It will be a white pipe sticking out of the foundation labeled "soil gas pipe", to differentiate it from a bathroom waste pipe. You should ask your representative to explain how the testing works before the PDI is over.

If your mandatory test comes back above 200 Bq/m³, then the builder will be responsible for remediation work. Generally, this will include extending the radon pipe in your basement up through the house and venting it through the exterior with a fan. Every home and situation is different, so remediation work may vary. If the results come back below 200 Bq/m³, you have the option of whether or not you choose to remediate.

If the builder chooses **Options 2 or 3**, where voluntary testing results come back over 200 Bq/m³, the owner should contact their builder and Tarion Home Warranty to determine next steps. Generally, the remedial measures will include breaking the concrete and adding a pipe that vents radon gas out of the building. Price and type of remediation differs for every home. Again, if the results come back below 200 Bq/m³, you have the option of whether or not you choose to mitigate.

When building a home you can also request the builder select a different option if you would prefer. The builder probably needs to know before permits are applied for as the rough in will be completed around the time the foundation is poured.