

Radon Testing and Mitigation

Frequently Asked Questions

What is radon?

Radon is a radioactive gas that occurs naturally across BC and Canada when uranium in soil and rock (often deep in the earth) breaks down.

Why is radon a concern?

Radon gas is carcinogenic, which means it is known to cause cancer in humans.

Radon is invisible, odourless and tasteless so there is no way to know if you are being exposed. Radon gas can infiltrate into any building where the foundation or slab contacts the soil and may accumulate to high levels in basements and ground floors. For more information on radon health effects see [Radon and Your health](#) on [MyHR](#).

When is testing completed on workplaces?

Real Property Division (RPD), has tested government-owned, managed and leased buildings since 2015/16. If you work in a building that was tested and exceeded the Health Canada guidelines, once the radon mitigation is completed the building will be retested the following winter to ensure radon levels are below the recommended guideline. Testing will then be completed every five years or after any major renovations to the building.

Is it safe to test my building for radon?

Yes, testing your building for radon is very safe. The detector used for testing your building for radon is passive and does not emit radiation.

How long does it take to test for radon?

There are various methods for indoor radon testing typically ranging from 2 days to 12 months. Health Canada recommends using a long term radon test that remains in the building for a minimum of 3 months and testing should be completed in the winter months when doors and windows are typically closed and there is more potential for indoor radon levels to 'build- up'.

Long term testing is the standard method being used for public service workplaces, but in some cases shorter term testing using specialized equipment may be completed to determine if mitigation strategies are making a difference. Short-term testing results were compared with long-term testing outcomes to provide a comprehensive understanding of the workplace environment.

Will I be told when testing in my building has started?

Building tenants will be informed of the start date of testing. Signage will also be posted indicating where testing is being completed. It's important that the test devices remain undisturbed for the duration of testing.

When will I know the test results for my building?

For standard long term testing the test period will be a minimum of 3 months. Upon completion, results will be sent to the lab for analysis and then provided to the project manager. Building tenants will be provided with test results within three months of the test completion.

My workplace is being tested for radon, should I also test my home?

The only way to know if you have radon present in your home is to test for it and you may decide it's a good idea test your home for radon. The long term radon test being used in your workplace is identical to test kits used for residential housing. If you choose to test your home, the winter is the time that levels could be at their highest due to windows and doors being closed.

Indoor radon test kits can be purchased through the [BC Lung Association](#). Instructions on the proper deployment of the test are included with the purchase of the test kit. You may also be able to purchase test kits from your local health authority.

How can indoor radon levels be reduced?

For buildings that have radon levels above 200 Bq/m³, one or more of the following measures may be needed:

- Increasing air exchange and ventilation.
- Sealing cracks in the foundation and openings around pipes, drains and at foundation edges.
- Installing an Active Sub-slab Depressurization System.

What is an 'active sub-slab depressurization system'?

Active sub-slab depressurization (ASD) helps to reduce the amount of radon entering a building by depressurizing the ground beneath the foundation and enabling soil gases to evacuate from below the foundation, up a pipe, and out the building.

An ASD has the benefit of an electrically powered fan – typically located in the attic but sometimes located in a basement. The fan creates a vacuum, drawing soil gases, such as radon, up through the pipe. The radon gas is then quickly diluted outdoors.

My building has a radon level higher than the recommended guideline will it be retested?

If your building tested above the Health Canada action level of 200 Bq/m³ it will be mitigated and the level of radon reduced as low as possible. Mitigation work is planned for completion before next winter. Upon completion of a radon mitigation a professional will re-test the building to ensure levels are below 200 Bq/m³.

If retesting shows that mitigation has not been successful, further steps will be taken, and the building will be retested.

Resources

If you would like further information about radon, visit the following websites.

BC Center for Disease control

<http://www.bccdc.ca/health-info/prevention-public-health/radon>

Health Canada

<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radon-what-you-need-to-know.html>

https://www.canada.ca/en/health-canada/services/publications/health-risks-safety/guide-radon-measurements-residential-dwellings.html#a1_3

Radon in Buildings Canadian Center for Occupational Health and Safety

https://www.ccohs.ca/oshanswers/phys_agents/radon.html

Guide for Radon Measurements in Residential Dwellings (Homes)

http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radon_canadians-canadiens/index-eng.php