

Radon and Radon Monitoring in Yukon Schools Frequently Asked Questions

The Government of Yukon is developing a radon management policy that will apply to all departments. This policy will outline practices for radon testing, monitoring and, where necessary, remediation in all government buildings. In the meantime, the Department of Education independently began monitoring radon levels in all Yukon schools in 2016.

The Department of Education has received initial radon monitoring data from all Yukon schools. Remediation work will be ordered for any buildings that test near or above Health Canada's recommended guidelines for radon.

What is radon and how does it get into buildings?

Radon is an odorless, tasteless and invisible gas produced by the decay of naturally occurring uranium in soil and water. Radon leaks from the ground wherever it can find a path to the surface and, since it is a gas, it may find its way into houses and buildings.

What are the health effects of radon?

The only known health effect of radon exposure is that long-term exposure to high levels of radon increases the risk of developing lung cancer. It is estimated that about 10 per cent of all lung cancer cases worldwide are related to radon exposure. The magnitude of risk depends on the amount of radon present, the length of exposure and whether or not the occupant smokes tobacco. The combination of inhaling radon gas and smoking can significantly increase the risk of lung cancer.

What are the Health Canada indoor air quality guidelines for radon?

Below 200 Bq/m³* – acceptable

Between 200 Bq/m³ and 600 Bq/m³ – remediate within 2 years

Above 600 Bq/m³ – remediate within 1 year

*Bq/m³ =Becquerel per cubic metre

What is involved in radon testing and monitoring?

Radon testing involves installing equipment to measure radon levels in every single room being used for more than four hours a day within a building.

Radon monitoring involves installing the same equipment to measure radon levels in multiple locations throughout a building, but not every single room.

It takes a minimum of three months to properly measure radon levels in a given space.

Will all Yukon schools buildings be tested?

Yes. Education and other Government of Yukon departments are working with the Public Service Commission to develop a unified approach to radon management. In the meantime, we are monitoring radon levels in all Yukon schools.

Schools that are found to have readings near or higher than Health Canada guidelines for radon will be subject to remediation and further testing.

Once the Government of Yukon adopts a corporate radon policy, the Department of Education will follow all guidelines determined to be best practice.

What if monitoring determines my child's school has high levels of radon gas?

If a high reading is recorded through monitoring, we will order remediation work to be completed. This will involve additional testing and follow up monitoring once remediation work is complete.

If radon levels are determined to be higher than Health Canada's recommended guidelines, a school will be remediated and re-tested until we are confident levels are acceptable.

What is the mitigation or remediation process?

Mitigation and remediation usually involves one or more of the following techniques:

- sealing cracks in foundations and other points where radon gas could enter a building;
- Improvements to ventilation systems to ensure adequate fresh air is entering a building;
- Installation of a depressurizing unit with fan under a school's foundation designed to capture radon gas before it enters the building; or
- Installation of specialized air filters.

Should I test for radon at home?

Testing at home is recommended. Contact a certified radon measurement professional or purchase a radon test kit from a local hardware store. Health Canada recommends that homes be tested for a minimum of three months, so make sure you get a long-term kit.

To contact a radon measurement professional to test and/or mitigate radon levels in your home, go to www.c-nrpp.ca/find-a-professional.

Where can I get more information on radon?

The following websites provide further information on radon:

Yukon Housing Corporation: Radon www.housing.yk.ca/radon.html

Health Canada: Radon Frequently Asked Questions www.canada.ca/en/health-canada/services/environmental-workplace-health/radiation/radon.html.

Canadian Centre for Occupational Health and Safety: Radon in Buildings www.ccohs.ca/oshanswers/phys_agents/radon.html

Radon Reduction Guide for Canadians
www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radon-reduction-guide-canadians-health-canada-2013.html