

Overview

Radon gas is present in Yukon and may be present in Yukon government buildings. The presence of radon in a workplace is a potential health risk to employees. In order to uphold our commitment to provide a healthy and safe work environment, the Yukon government will assess workplaces for radon and strive, where needed, to lower levels of indoor radon to the extent practicable, in keeping with Health Canada's Guide for Radon Measurements in Public Buildings radon thresholds.

General

Radon is a radioactive gas that is formed naturally by the breakdown of uranium in soil, rock and water. It cannot be detected by the senses, i.e., it is colourless and odourless; however, it can be detected with scientific instruments. Radon usually escapes from the ground into outdoor air where it mixes with fresh air resulting in concentrations too low to be of concern. However, when radon enters an enclosed space, such as a building, it can accumulate to high concentrations. The only known health risk associated with exposure to radon is an increased risk of developing lung cancer. The level of risk depends on the concentration of radon and length of exposure.¹

The only way to know if a building has high levels of radon is to conduct tests.

Applicable Legislation and Guidelines

- [Yukon Occupational Health and Safety Act](#)
- [Health Canada Guide for Radon Measurements in Public Buildings](#)
- [General Administration Manual \(GAM\) 3.48 Corporate Health and Safety](#)
- [Environmental Protection Agency](#)
- [Collective Agreement - YEU](#)
- [Collective Agreement - YTA](#)

¹ Health Canada *Guide for Radon Measurements in Public Buildings*: (January 2016), 3.

Approach

Departments will undertake a systematic multiple year testing of workplaces following the Health Canada Guide for Radon Measurements in Public Buildings, to determine radon gas levels.

Testing will be:

1. Completed or guided by a certified Canadian – National Radon Proficiency Program (C-NRPP) radon measurement professional
2. Completed following the Health Canada Guide for Radon Measurements in Public Buildings
3. Conducted in all occupied rooms on the lowest level of a building in contact with the ground (“occupied” means an individual spends more than 4 hours per day in the space)
4. Conducted in any occupied room located above an unoccupied room that has not been tested
5. Conducted in rooms that are planned to be occupied
6. Conducted post-mitigation
7. Completed during the heating season (October to April) when windows are closed
8. Conducted over an extended period (3 months minimum)

Testing will not be conducted:

IN	NEAR
<ul style="list-style-type: none"> • Bathrooms • Storage Areas • Meeting Rooms • Coffee Rooms • Unoccupied Spaces • Janitorial Closets • Kitchens/Staff Rooms 	<ul style="list-style-type: none"> • Ventilation Streams • Sump holes • Computer/Electrical Equipment • Heat Sources • Open windows or doors

Retesting Parameters

Departments will retest when:

- The building envelope (primarily the foundation or basement) is disturbed, modified or improved.
- There has been seismic activity that causes structural damage.
- There has been major renovation on the ground or basement floors.
- Radon remediation has been carried out.

Test Devices

All test devices must be recognized by Health Canada and/or the Canadian - National Radon Proficiency Program (C-NRPP)

Testing Schedule

Year One – 2017/18	<ul style="list-style-type: none"> • 24-hour residential care facilities (including facilities for youth, persons with disabilities, alcohol and drug treatment, and long term care) • Detention centers • Schools • Health centers • Staff housing
Year Two – 2018/19	<ul style="list-style-type: none"> • Worksites occupied 24 hour basis <ul style="list-style-type: none"> ○ Weigh stations ○ EMS stations
Year Three – 2019/20	<ul style="list-style-type: none"> • Offices • Liquor retail outlets • Occupied warehouses • Occupied community EMS stations • Mechanical shops • Maintenance garages • Visitor Information Centres • Other workplaces

Communications

Corporate communication on radon will be provided by the Public Service Commission. Departments will provide detailed radon communication to employees. This may include information on testing including dates and timelines, test results, and mitigation actions.

The Corporate Health and Safety website will post radon test and post-mitigation test results for the facility.

Subsequent Testing

Buildings that have undergone mitigation to reduce radon levels will be re-tested within two years and at five year intervals thereafter.

Buildings that tested below the Health Canada guideline level of 200Bq/m³ will be retested in accordance with the *Retesting Parameters* above.

Schools that have long-term tests above 200Bq/m³ must apply section 6.3 Follow-Up Measurements in Schools to Determine the Basis for Mitigation of the Health Canada *Guide for Radon Measurements in Public Buildings*.

Costs

Costs associated with radon testing will be the responsibility of departments. Radon mitigation will be subject to Highways and Public Works (HPW) processes and guidelines for building maintenance.

Roles and Responsibilities

Health and Safety Leadership Committee:

- Provide initial and on-going strategic direction as per GAM Policy 3.48

Health and Safety Implementation Sub-Committee – Department Representatives

- Act as the Liaison between the department and the HSISC for all matters related to radon testing and mitigation in buildings under their department's custody and control

Corporate Health and Safety (Public Service Commission)

- Provide assistance and guidance to departments by application of Radon Management Guidelines and clarification of Health Canada *Guide for Radon Measurements in Public Buildings*
- Provide and maintain a corporate data base to track tests performed, results, and mitigation efforts when required
- Provide health and safety leadership expertise on radon testing and management when required
- Provide guidance to departmental safety employees, health and safety committees, and representatives on carrying out testing
- Provide departments with a standardised Request For Bid (RFB) template for radon testing
- Provide training to departments on Parklane Systems (corporate data base)

Departments - all

- Coordinate initial testing in department workplaces, to determine baseline radon level
- Utilize consistent procurement practices to conduct testing
- Ensure testing meets the standards set out in the Health Canada *Guide for Radon Measurements in Public Buildings*
- Track and maintain records of initial and post mitigation test results and results in Parklane Systems
- Submit work request(s) for radon mitigation, if necessary, according to the Health Canada *Guide for Radon Measurements in Public Buildings*
- Communicate to department staff and department Joint Occupational Health and Safety Committees the testing intentions, initial test results, and if any, mitigation action timelines and post mitigation test results, as well, inform staff of delays
- Monitor results and, when needed, work with HPW to determine and implement mitigation strategies
- Ensure that radon mitigation has been completed and that radon levels are at acceptable levels post-mitigation
- Address Inspection Report orders issued by YWCHSB for radon test results

Highways and Public Works

- Coordinate appropriate mitigation planning and actions, consistent with the health Canada *Guide for Radon Measurements in Public Buildings*, for departments upon notification of potential radon exposure above 200 Bq/m³
- Utilize consistent procurement practices to conduct mitigation and post mitigation testing
- Undertake mitigation actions, including a post mitigation test as required by Health Canada *Guide for Radon Measurements in Public Buildings*
- Provide post mitigation test results to affected department

Yukon Housing Corporation

- Coordinate testing and mitigation of staff housing

Continuous Improvement

Amendments to the Health Canada *Guide for Radon Measurements in Public Buildings* will be acted upon to continuously improve the safety of Yukon Government workplaces.

Training

Departments may benefit from select staff becoming certified testers through C-NRPP on-line training program.