

Chapter 8

Risk of Contamination in Public Housing Units

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Risk of Contamination in Public Housing Units

Radon gas found in certain public housing units

8.1 During our regular financial audit of the Province’s financial statements, it was found the Department of Social Development (SD) owns certain public housing units (units) that have high levels of radon gas. Radon gas is a “radioactive gas that occurs naturally when the uranium in soil and rock breaks down. It is invisible, odourless and tasteless”¹At certain levels of concentration, the inhalation of radon gas increases the risk of lung cancer.²

284 units found to have exceeding levels of radon

8.2 SD owns and operates a total of 4,516 public housing units as of November 28, 2019, the date we performed our work on this issue. Of this total, 871 units have been tested for radon levels, with 284, or 33%, found to have exceeding levels of radon beyond the Government of Canada Radon Guideline (guideline). Contaminated public housing units are units that exceed this guideline.

8.3 The guideline recommends remedial measures be undertaken in a dwelling whenever the average annual radon concentration exceeds 200 Bq/m³ in the normal occupancy area.

94 contaminated units have been remediated

8.4 Of the 284 contaminated units found at November 28, 2019 to have exceeding levels of radon, only 94, or 33%, have been successfully remediated. SD has developed a remediation plan in collaboration with the Department of Transportation and Infrastructure (DTI) for the remaining 190 contaminated units.

¹ <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radon-your-home-health-canada-2009.html#a2>

² <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radiation/radon-your-home-health-canada-2009.html>

How much would remediation cost?

8.5 There are three types of systems used by DTI to remediate radon contamination and depending on the individual unit circumstance multiple systems may be needed to remediate the unit. Estimated costs for each system as provided by DTI are:

- sub slab depressurization (SSD) \$4,000;
- sub membrane depressurization (SMD) \$10,000; and
- heat recovery ventilation (HRV) \$2,500 - \$5,000.

What is SD's remediation plan for identified contaminated units

8.6 The first stage of the remediation plan for the remaining 190 contaminated units will occur during the fiscal 2020-21 year, when remediation systems will be installed in 95 of the contaminated units

8.7 The second stage will occur during the fiscal 2021-22 year. During this stage, the remaining 95 contaminated units will have remediation systems installed, while the units that had remediation systems installed in the prior year will be tested to ensure successful remediation has been achieved.

8.8 The third stage of the plan occurs in fiscal 2022-23, when the final 95 remediated units will be retested to ensure successful remediation has been achieved. This timeline considers:

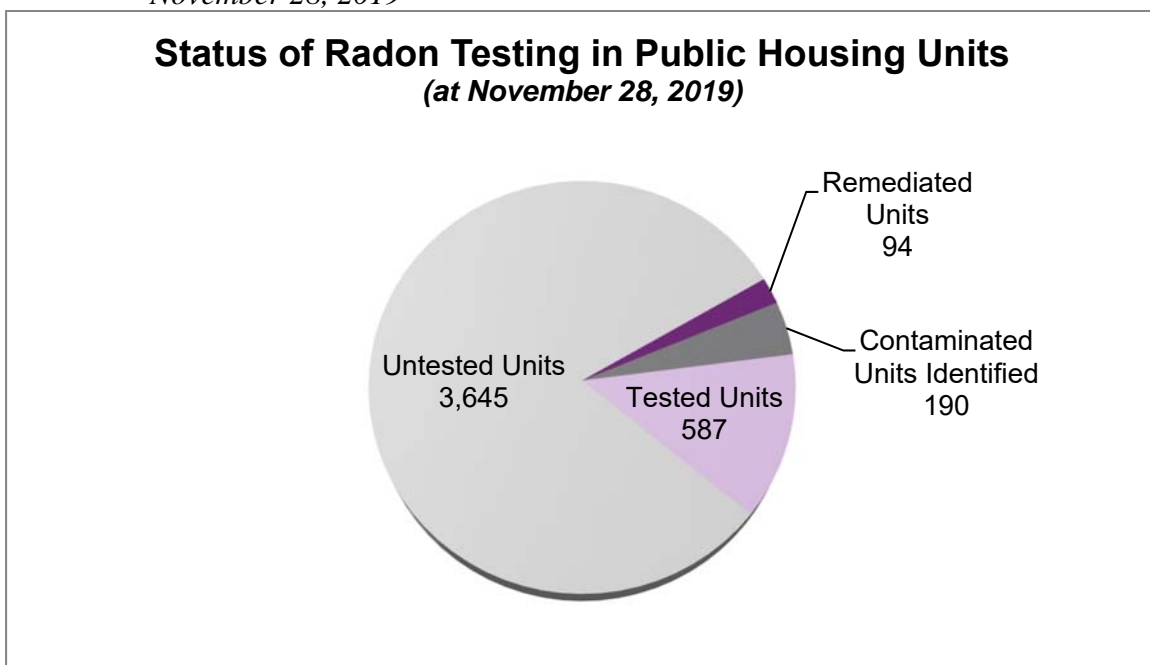
- the specialization required for this type of remediation;
- and the capacity and availability of the 5-6 certified contractors in New Brunswick eligible to do the work.

8.9 The total cost of the plan is expected to be approximately \$1.5 million and consists of:

- \$880,000 for the remediation systems;
- \$600,000 for labour; and
- \$11,400 for post-remediation testing.

8.10 The current status of testing for radon in public housing units at November 28, 2019 is presented in Exhibit 8.1.

Exhibit 8.1 - Status of Radon Testing in Public Housing Units at November 28, 2019



Source: Prepared by AGNB

8.11 As presented in Exhibit 8.1, most of the units (3,645) have not yet been tested to determine if radon is exceeding the guideline. Included in SD's plan, DTI will continue to perform testing of the 3,645 untested units at a rate of 160 annually.

- 8.12** The rate of 160 units tested by DTI per year is determined by the departmental budget and the limitations involved in the testing process. These include the following:
- staff availability;
 - access to units;
 - tenant tampering with testing device such as moving it around;
 - testing duration of 3 months; and
 - testing recommended to be performed in winter months.
- 8.13** The cost of a single radon test kit is \$60, therefore we estimate it will cost \$218,700 to test the remaining units. Costs for postage, staffing, and staff travel would be in addition to this estimate.
- 8.14** Until testing has been completed, we will not know the total number of affected units and the extent of remediation required.
- 8.15** If we extrapolate the number of identified contaminated units identified so far, we can estimate that 32.6% of the remaining untested units, or 1,188 units, will test positive for exceeding radon level guidelines and require remediation. This represents a possible health risk to residents of public housing units.
- 8.16** We are concerned about the pace of testing. If this rate of testing were to continue, it would take almost 23 years to test all units. In our view, given the possible health risks of radon, this pace of testing is too slow. We therefore have made a recommendation to SD to improve this process.
- 8.17** **We recommend Social Development work with the Department of Transportation and Infrastructure to more aggressively address radon remediation in public housing units.**
- 8.18** SD has committed to notifying all current and future occupants of contaminated units of the presence of radon in their public housing unit and establishing a means of identifying when the units become vacant to facilitate future notification.

SD's current testing plan to take 23 years is too slow to complete

Recommendation

SD committed to notifying tenants of contaminated units

Impacted tenants not notified by SD in a timely manner

8.19 SD sent the notification letters to the Technical Service Managers (TSMs) in the public housing unit regions on June 1, 2020 for distribution to impacted tenants to inform them of known contaminated units. SD has confirmed as of November 2020, all notices have been distributed. As we were notified of SD's awareness of the issue in November 2019, we feel there was a lack of timeliness in the issuance of the notices to tenants.

8.20 Due to the possible health and safety impact to tenants in contaminated units, in our view this process needs to be completed in a timelier manner in the future. We have therefore made a recommendation to SD.

Recommendation

8.21 We recommend Social Development notify public housing unit tenants in a timely manner of test results indicating a presence of radon and the remediation process being undertaken.