

To: CAO for the Regional and Corporate Services Committee

Date: 2019-04-09

From: Marina Richter, Environmental Policy Analyst

File No: 9050-20-078

Subject: Radon awareness in the FVRD

INTENT

This report is intended to advise the Regional and Corporate Services Committee of information pertaining to concerns associated with radon exposure within the Fraser Valley and an upcoming Health Canada workshop. Staff is not looking for a recommendation and has forwarded this information should members want more clarification or to discuss the item further.

STRATEGIC AREA(S) OF FOCUS

Support Environmental Stewardship
Support Healthy & Sustainable Community
Provide Responsive & Effective Public Services

PRIORITIES

Priority #2 Air & Water Quality

BACKGROUND

Radon can be found in all regions of British Columbia, including the FVRD. It is a colorless, odorless, radioactive gas created by the normal decay of natural uranium found in underlying bedrock. When radon escapes from the ground and enters a building through the small openings in foundations and walls, it can accumulate. Long-term exposure to high levels of radon results in an increased risk of developing lung cancer. In fact, Health Canada estimates that long-term exposure to radon is the second leading cause of lung cancer after smoking and is linked to 16% of lung cancer deaths in Canada.

A measurable amount of radon could be found in any building; however, radon levels vary significantly from place to place. If radon is detected at the levels above the health guideline threshold of 200 Becquerel per cubic meter (Bq/m³), mitigation measures should be taken to vent the gas to the outdoors. Health Canada recommends taking action within 1-2 years to lower the indoor radon levels above the threshold.

DISCUSSION

New radon data indicates that some areas in the FVRD have radon levels that are of concern. Naturally-emitted radon exists throughout the Fraser Valley, but the data has resulted in some areas being upgraded to either Zone 2 (elevated) or even Zone 1 (high levels). Buildings within those areas, particularly older buildings, have relatively high radon potential. This categorization does not mean

that buildings in lower risk zones are radon-free. The only way to know if the house has high radon levels is to test it, which is what is being recommended by Health Canada.

The upgraded radon levels bring associated new requirements under the 2018 BC Building Code. For example, under the new Code, all new buildings located at the High Risk Zones (Zone1) are required to have a radon rough-in (vent pipe) for a subfloor depressurization system.

Due to radon levels within the Fraser Valley and the potential health concerns associated with it, Health Canada has asked the FVRD to assist it in facilitating an upcoming workshop for local government planners and building inspectors across the region. The workshop will provide information on radon and its associated health concerns, where it is found, how it can be tested, applicable regulations, and what can be done to reduce exposure levels. The FVRD is also seeking to acquire several radon test kits that will be distributed for use amongst interested municipalities.

The workshop is tentatively planned for mid-June. More information will be provided once dates are secured.

COST

n/a

CONCLUSION

Radon is the second leading cause of lung cancer in Canada, but awareness about radon remains relatively low. It is a naturally occurring gas found within Fraser Valley bedrock, and when emitted, can accumulate in buildings resulting in exposure concerns. Health Canada would like to work with the FVRD on an upcoming workshop to raise awareness about radon and protect residents from potentially unsafe exposure.

COMMENTS BY:

Stacey Barker, Director of Regional Services

Reviewed and supported.

Mike Veenbaas, Director of Financial Services

No further financial comments.

Paul Gipps, Chief Administrative Officer

Reviewed and supported