



# Board of Education Informational Report

## MEMORANDUM

**Date:** June 1, 2016

**To:** Members of the Board of Education and Superintendent Smith

**From:** David Hobbs, Senior Director of Facilities and Asset Management

**Subject:** Radon Testing in Spring 2016

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I want to provide you with an update on radon testing that has just been completed, and final test results were provided to Portland Public Schools today.

PPS hired PBS Environmental in March 2016 to conduct district-wide radon testing based on the requirements of new legislation mandating testing in every school by January 2021. PPS last tested for radon in 2001.

PPS decided to start testing now and focused on the 26 PPS buildings that had higher radon levels in 2001 and received remediation. Of those buildings, we sampled approximately 800 rooms. I received final results today that indicate 121 rooms exceeded the initial action level of 4 pCi/L (picocuries per liter) but were less than 10 pCi/L.

- For 4 pCi/L or above, Environmental Protection Agency (EPA) guidelines recommend a long term follow up test.
- Per EPA guidelines, a follow up test is done for 9 months during the school year immediately following the initial test period.
- These tests will be scheduled for the Fall of the 2016-17 school year.
- PPS will follow the EPA guidelines for testing and mitigation.

These tests also showed that PPS had 9 rooms in 6 schools (Meek, Beaumont, Whitman, Roseway Heights, Lent and Marysville) that exceeded the higher action level of 10 pCi/L or above.

- For 10 pCi/L or above, the EPA guidelines call for a short-term follow up test in the same location as the initial measurement and, if possible, during the coldest months of season. We know June is not the coldest month of the season, but want to conduct this test immediately.
- This test will begin Monday, June 6 and will last for 48 to 72 hours.

- PPS will follow the EPA guidelines for testing and mitigation.

We still have technical questions pending with the lab at this time, but wanted to provide you with the testing results now. The lists of buildings and rooms are attached.

According to the Environmental Protection Agency:

- Radon is a radioactive gas.
- Radon gas enters from the soil beneath the school through cracks and openings in the foundation. Air pressure inside a building is sometimes lower than pressure in the soil under the foundation. Because of this difference in pressure a building acts like a vacuum, drawing radon inside from the soil. Typical cracks and openings include joints where the floor meets the wall, expansion joints in the floor, openings in the floor for pipes and wires, and hollow masonry walls that penetrate the floor.

In 2001, PPS undertook three types of mitigation. We anticipate using similar strategies if warranted after the second round of testing (The following descriptions are from the EPA, Radon Measurement in Schools Revised Edition):

- Sub-slab Depressurization: a series of pipes are installed that penetrate the slab or foundation walls. A high suction fan is attached to those pipes to draw and vent the soil gas (containing radon) from beneath the building foundation before the gas has a chance to enter into the building.
- HVAC Pressurization: the pressurization of school building is accomplished when sufficient quantities of outdoor air are introduced into the building producing a positive air pressure within the building.
- HVAC Ventilation: restoring the ventilation capacity of an existing HVAC system to meet its original design specifications, will in some cases, achieve the appropriate level of building pressurization. If possible, ventilation rates should be increased to meet current ventilation standards. Proper ventilation through the introduction of outdoor air can reduce radon levels by diluting the radon that has entered the building.

We will be providing this information to the community tonight and continue to keep you and the community updated.