
INDUSTRIAL HYGIENE RADON REPORT

Straub Middle School

RADON TESTING SAMPLE REPORT

Report to: Vonnie B. Good, EHS Salem Keizer School District

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On-site: January 5–8, 2015

Report: February 10, 2015

PURPOSE

Follow up radon testing was done in Classrooms 117 and 118 to determine if the radon levels are remaining below the EPA's Action Level after installation of the radon mitigation system.

CONCLUSION

Both test locations had low levels of radon, indicating the radon mitigation controls are continuing to reduce the radon gas levels in the classrooms.

TESTING

Radon Air-Chek short-term test devices were used in the rooms by suspending the device in each room. The testing occurred from January 5-9, 2015, during normal and routine school ventilation system operation, as well as with the new radon mitigation system in operation.

SAMPLE RESULTS

In March 2013 in Classroom 117, the radon level was 5.4 pCi/L. When the room was retested on April 2-5, 2013 the radon level had increased to 8.7 pCi/L. Retesting in January 2015, with the mitigation system operating, found non-detectable radon levels, <0.3 pCi/L.

Classroom 118 in the March test found 4.2 pCi/L. When the room was retested on April 2-5, 2013 the radon level had increased to 6.5 pCi/L. Retesting in January 2015, with the mitigation system operating, found non-detectable radon levels, <0.3 pCi/L.

BACKGROUND ON RADON

Radon is a gas that occurs in nature, seeping up from the earth. It is odorless, colorless, and tasteless. Radon comes from the natural breakdown, or radioactive decay, from Uranium 238. The half-life of an individual element is relatively short. Within two weeks, about 90% of a given amount of radon gas will be gone. However, the actual health concern is for the radon decay products, called radon progeny, which carry a small static charge that allows their attachment to water vapor, dust, and smoke particles in the air.

The Radon progeny can become lodged in the lung tissue when they are inhaled, and it is these particles' further radiation decay that is associated with potential lung cancer effects.

Radon can seep into buildings or schools through cracks in slab floors or porous cinderblock. It can enter around loose-fitting drainage pipes or through sump pumps. Pressure differential between the building and the soil surrounding the foundation can draw soil gases into the building.

The US EPA has set an action level of 4.0 pCi/L. At or above this level of radon, the EPA recommends that corrective measures be taken to reduce the exposure to radon gas.

CONTROL OF RADON LEVELS IN SCHOOLS

A subslab depressurization system was installed in the Custodial Closet near Rooms 117 & 118 to reduce the radon level in these classrooms. The mitigation system is clearly very effective.

January 12, 2015

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SCHOOL
STRAUB

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7015739	117	2015-01-05 @ 10:00 am	2015-01-08 @ 10:00 am	< 0.3	2015-01-09
7015740	118	2015-01-05 @ 10:00 am	2015-01-08 @ 10:00 am	< 0.3	2015-01-09

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