
INDUSTRIAL HYGIENE RADON REPORT

Straub Middle School Rooms 117 and 118

RADON TESTING SAMPLE REPORT

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

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Reviewed By: DeEtta Burrows, MSPH, CIH – Wise Steps, Inc.

On-site: January 7–10, 2014

Report: January 23, 2014

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

The two classrooms had low levels of radon, indicating the radon mitigation controls are reducing the radon gas levels.

SAMPLE RESULTS

After the radon mitigation system was installed and operational, the radon levels in Classroom 117 was 0.6 pCi/L and in Classroom 118, the level was <0.3 pCi/L.

The initial tests conducted March 11-14, 2013 measured radon levels in Classroom 117 at 5.4 pCi/L and Classroom 118 at 4.2 pCi/L.

The first follow up tests conducted April 2-5, 2013 measured radon levels in Classroom 117 at 8.7 pCi/L and in Classroom 118, the radon level had increased to 6.5 pCi/L

The second follow up tests conducted April 15-1, 2013 after the ventilation system operation was adjusted, measured a decreased radon levels. In Classroom 117 the level was 4.0 pCi/L and in Classroom 118, the level was 3.0 pCi/L.

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 7-10, 2014 during normal and routine school ventilation system operation, as well as with the new radon mitigation system in operation.

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 December 2013 to reduce the radon level in Classrooms 117 and 118. This mitigation system is successfully lowering the radon levels to well below the EPA Action Level.

January 14, 2014

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SK
STRAUB

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
4602071	RM 117	2014-01-07 @ 3:00 pm	2014-01-10 @ 8:00 am	0.6	2014-01-14
4602072	RM 118	2014-01-07 @ 3:00 pm	2014-01-10 @ 8:00 am	< 0.3	2014-01-14

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