
INDUSTRIAL HYGIENE RADON REPORT

Sprague High School RADON TESTING SAMPLE REPORT

Report to: Vonnie B. Good, EHS Salem Keizer School District
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On-site: November 12–15, 2013

Report: November 25, 2013

PURPOSE

Follow up radon testing was done in Classrooms 118 and 122 on the first floor and in Classrooms 1, 8 and 14 in the basement to determine if the radon levels are remaining below the EPA's Action Level due the installation of the radon mitigation systems.

CONCLUSION

All test locations had low levels of radon, indicating the radon mitigation systems are continuing to keep the radon levels in the classrooms low.

SAMPLE RESULTS

Room 118, in November 2012, the level was 1.1 pCi/L and in November 2013, the level was 0.7 pCi/L.

Room 122, in November 2012, the level was 1.3 pCi/L and in November 2013, the level was 1.1 pCi/L.

Room 1, in March 2013, level was <0.3 pCi/L and in November 2013, the level was 1.1 pCi/L.

Room 8, in March 2013, the level was 1.1 pCi/L and in November 2013, the level was 0.9 pCi/L.

Room 14, in March 2013, the level was 0.6 pCi/L and in November 2013, the level was 0.8 pCi/L.

TESTING

Radon Air-Chek short-term test devices were used in the 5 classrooms by suspending the device in each room. The testing occurred from November 12-15, 2013 during normal and routine school ventilation system operation, as well as with the radon mitigation systems 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 pCi/L. At or above this level of radon, the EPA recommends corrective measures should be taken to reduce the exposure to radon gas.

CONTROL OF RADON LEVELS IN SCHOOLS

The major control mechanism for lowering radon levels within school buildings is the use of dilution ventilation, if the amount of outside air delivered into a building increases, the radon levels should decrease. Sprague has three radon mitigation systems in operation, one each in Room 121, 2 and 14.

November 19, 2013

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SK
SPRAGUE

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
4601939	1	2013-11-12 @ 2:00 pm	2013-11-15 @ 2:00 pm	1.1	2013-11-19
4601937	118	2013-11-12 @ 2:00 pm	2013-11-15 @ 2:00 pm	0.7	2013-11-19
4601938	122	2013-11-12 @ 2:00 pm	2013-11-15 @ 2:00 pm	1.1	2013-11-19
4601941	14	2013-11-12 @ 2:00 pm	2013-11-15 @ 2:00 pm	0.8	2013-11-19
4601940	8	2013-11-12 @ 2:00 pm	2013-11-15 @ 2:00 pm	0.9	2013-11-19

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