
INDUSTRIAL HYGIENE RADON REPORT

Liberty 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 6, 2015

PURPOSE

Follow up radon testing was done in classrooms 20, 21, and 22 to determine if the radon levels are remaining below the EPA's Action Level after installation of the radon mitigation system.

CONCLUSION

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

SAMPLE RESULTS

Room 20, in December 2012, the level was 3.3 pCi/L and in January 2015, the level was 2.7 pCi/L.

Room 21, in December 2012, the level was 4.5 pCi/L and in January 2015, the level was 2.0 pCi/L.

Room 22, in December 2012, the level was 4.6 pCi/L and in January 2015, the level was 2.0 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 5-9, 2015, 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

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. A subslab depressurization system was installed to reduce the radon level in these three classrooms.

January 12, 2015

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SCHOOL
LIBERTY

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7015724	20	2015-01-05 @ 9:00 am	2015-01-08 @ 10:00 am	2.7	2015-01-09
7015723	21	2015-01-05 @ 9:00 am	2015-01-08 @ 10:00 am	2.0	2015-01-09
7015722	22	2015-01-05 @ 9:00 am	2015-01-08 @ 10:00 am	2.0	2015-01-09

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