

INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

West Salem High School

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

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On-site: December 4-7, 2017

Report: December 19, 2017

PURPOSE

After initial testing showed radon levels above EPA's Action Level of 4.0 picoCuries/L (pCi/L) in a number of rooms at West Salem High School, a radon mitigation system was installed in July of 2013. To ensure that the systems are functioning properly and levels are well below EPA's Action Level, annual radon testing is performed.

CONCLUSION and RECOMMENDATION

All tested locations had levels of radon below the EPA recommended level, however, office B105A continues to have radon levels above the School District's trigger to retest.

Recommend retest office 105A after increasing the amount of outside air provided to the room via the ventilation system.

TESTING

Radon testing was conducted using protocols recommended by the Oregon Health Authority per ORS 332.166-.167. Radon Air-Chek short-term test devices were used in the rooms by suspending the device in each room. The testing occurred from December 4-7 2017, during normal and routine school ventilation system operation, as well as with the radon mitigation system in operation. Weather conditions a week prior to the testing had been rainy with low temperatures.

Quality assurance testing was also conducted by utilizing blank and duplicate samples per the recommendations found in ORS 332.166-.167.

EPA RADON GUIDELINES

The EPA has set an Action Level of 4.0 pCi/L (picoCuries per liter) for schools. If classrooms or buildings have radon levels at or above 4.0 pCi/L, EPA recommends that schools take action to reduce the level. These actions include:

Step 1. If your result is 4.0 pCi/L or higher take a follow-up test (Step 2) to be sure.

Step 2. Follow up with either a long-term test or a second short-term test.

The World Health Organization has set their action level at 2.7 pCi/L. Salem Keizer School District has determined that 2.7 pCi/L is a target level where retesting should be done.

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. Increasing the ventilation did not sufficiently lower the radon levels in this section of the school. Therefore, a sub-slab depressurization system was installed in 2013.

Sample Data Attached

December 13, 2017

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**SK
WEST**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7979849	105	2017-12-04 @ 11:00 am	2017-12-07 @ 10:00 am	2.3 ± 0.2	2017-12-08
7979850	105A	2017-12-04 @ 11:00 am	2017-12-07 @ 10:00 am	3.6 ± 0.3	2017-12-08
7979851	105B	2017-12-04 @ 11:00 am	2017-12-07 @ 10:00 am	1.1 ± 0.2	2017-12-08
7979852	105C	2017-12-04 @ 11:00 am	2017-12-07 @ 10:00 am	2.2 ± 0.2	2017-12-08
7979847	117	2017-12-04 @ 11:00 am	2017-12-07 @ 10:00 am	< 0.3	2017-12-08
7979848	117	2017-12-04 @ 11:00 am	2017-12-07 @ 10:00 am	< 0.3	2017-12-08
7979853	CHECK IN	2017-12-04 @ 11:00 am	2017-12-07 @ 10:00 am	< 0.3	2017-12-08

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