

INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

Cummings School

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

By: Kathy Ellis, Senior Industrial Hygiene Consultant

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

On-site: November 18–21, 2019

Report: December 2, 2019

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 Cummings a radon mitigation system was installed in December of 2016. To ensure that the systems are functioning properly and levels are well below EPA's Action Level, annual radon testing is performed.

CONCLUSION

All classrooms and the gym and custodian's office continue to have low levels of radon.

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 November 18-21, 2019 during normal and routine school ventilation system operation. Weather conditions during the weeks prior of testing had been generally dry with moderate temperatures.

Quality assurance testing was also conducted by utilizing laboratory spiked test devices, (QCS), blank (QCB) test devices, and duplicate samples per the recommendations found in ORS 332.166-167. QCS1 is the spiked test kit and does not represent a radon level in the school.

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.

Sample Data Attached

November 27, 2019

** LABORATORY ANALYSIS REPORT **

Radon test result report for:

**SK
CUMMINGS**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9304956	CUSTODIAN OFFICE	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	0.7 ± 0.3	2019-11-25
9304955	PE OFFICE	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	< 0.3	2019-11-25
9304974	QCB1	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	< 0.3	2019-11-25
7274553	QCS1	2019-11-17 @ 8:00 am	2019-11-20 @ 8:00 am	26.3 ± 1.6	2019-11-25
9304951	RM 13	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	2.1 ± 0.3	2019-11-25
9304953	RM 14	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	1.9 ± 0.4	2019-11-25
9304954	RM 15	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	2.6 ± 0.4	2019-11-25
9304952	RM 16	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	2.5 ± 0.4	2019-11-25
9304949	RM 17	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	1.2 ± 0.3	2019-11-25
9304950	RM 17	2019-11-18 @ 10:00 am	2019-11-21 @ 11:00 am	1.3 ± 0.3	2019-11-25