

INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

Liberty 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 13–16, 2018

Report: November 25, 2018

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 Liberty school, a radon mitigation system was installed in August of 2014. To ensure that the systems are functioning properly and levels are below EPA's Action Level, annual radon testing is performed.

CONCLUSION

All classrooms had levels of radon below the EPA Action Level. However, Classroom 20 had a radon level of 2.7 pCi/L, which is at the Salem Keizer School District recommended level for retesting.

It is recommended to increase the amount of outdoor air to Classroom 20 then retest the room for radon levels.

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 13-16, 2018, during normal and routine school ventilation system operation, as well as with the radon mitigation system in operation. Weather conditions a week prior to and during the testing had been dry with moderate outdoor 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.

Sample Data Attached

I5068 / VONNIE GOOD

Kit Number	Start Date	Start Time	End Date	End Time	Temp.	Facility	Building	Room	Project ID	Floor	Result
7979866	2018-11-13	9:00 am	2018-11-16	8:00 am	70	SK	LIBERTY	22		1	2.4
7979867	2018-11-13	9:00 am	2018-11-16	8:00 am	70	SK	LIBERTY	22		1	2.0
7979868	2018-11-13	9:00 am	2018-11-16	8:00 am	70	SK	LIBERTY	CHECK IN		1	< 0.3
7979869	2018-11-13	9:00 am	2018-11-16	8:00 am	70	SK	LIBERTY	21		1	2.2
7979870	2018-11-13	9:00 am	2018-11-16	8:00 am	70	SK	LIBERTY	20		1	2.7