

INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

Schirle Elementary 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: 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 few of the rooms at Schirle, a radon mitigation system was installed in March of 2016. To ensure that the system is functioning properly and levels are well below EPA's Action Level, annual radon testing is performed.

CONCLUSION AND RECOMMENDATION

All locations had very 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 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. Because increased ventilation didn't sufficiently lower the radon levels, a subslab depressurization system was installed in in this school in March of 2016.

Sample Data Attached

December 13, 2017

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**SK
SCHIRLE**

| Kit # | Room Id | Started | Ended | pCi/L | Analyzed |
|-------------------------------------|-----------|-----------------------|----------------------|-----------|------------|
| <small>View Menu</small> 7979825 | B2 | 2017-12-04 @ 10:00 am | 2017-12-07 @ 9:00 am | 1.3 ± 0.2 | 2017-12-08 |
| 7979826 | B3 | 2017-12-04 @ 10:00 am | 2017-12-07 @ 9:00 am | 1.2 ± 0.2 | 2017-12-08 |
| 7979827 | B3 | 2017-12-04 @ 10:00 am | 2017-12-07 @ 9:00 am | 1.7 ± 0.2 | 2017-12-08 |
| 7979827 | B4 | 2017-12-04 @ 10:00 am | 2017-12-07 @ 9:00 am | 1.1 ± 0.2 | 2017-12-08 |
| 7979829 | CHECK IN | 2017-12-04 @ 10:00 am | 2017-12-07 @ 9:00 am | < 0.3 | 2017-12-08 |
| 7979823 | PRINCIPAL | 2017-12-04 @ 10:00 am | 2017-12-07 @ 9:00 am | 0.6 ± 0.2 | 2017-12-08 |
| 7979828 | STAFF RM | 2017-12-04 @ 10:00 am | 2017-12-07 @ 9:00 am | 1.1 ± 0.2 | 2017-12-08 |

Air Chek, Inc. 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498