

INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

Candalaria 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: January 5–8, 2016

Report: January 13, 2016

PURPOSE

Radon monitoring was done to measure the background levels in all classrooms, offices and staff work rooms that are in contact with the ground or below ground level as a follow up after radon remediation engineering controls have been in place.

CONCLUSION AND RECOMMENDATION

All classrooms had very low to non-detectable levels of radon. Two test locations were above the EPA's action level of 4 picoCuries per liter (pCi/l) these locations are: "Dungeon" or storage room @ 15 pCi/L and the Speech room @ 5.4 pCi/L. One other location, the office in room 6, location 6A, had a radon level of 3.6 pCi/L which is above the Salem Keizer School District recommended level.

It is recommended that the operation of the ventilation systems for the Speech room and office 6A should be checked to make sure that the amount of outdoor air supplied has not been shut off. If possible increase the amount of outdoor air to these rooms, then retest these rooms for radon levels.

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 5-8, 2016, during normal and routine school ventilation system operation, as well as with the radon mitigation system in operation.

EPA RADON GUIDELINES

Salem Keizer School District has determined that 2.7 pCi/L is a target level where retesting should be done.

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:

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 in in this school.

Sample Data Attached

Radon test result report for:
SK
CANDALARIA

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
4925927	1	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	0.9 ± 0.3	2016-01-12
4925928	2	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	< 0.3	2016-01-12
4925929	3	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	0.8 ± 0.3	2016-01-12
4925930	4	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	< 0.3	2016-01-12
4925932	6	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	2.5 ± 0.4	2016-01-12
4925931	6A	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	3.6 ± 0.4	2016-01-12
4925923	COUNSELOR	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	2.4 ± 0.3	2016-01-12
4925925	CUSTODIAN	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	2.4 ± 0.3	2016-01-12
4925926	DUNGEON	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	15.0 ± 0.8	2016-01-12
4925933	MUSIC	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	0.8 ± 0.3	2016-01-12
4925935	PE OFFICE	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	0.9 ± 0.3	2016-01-12
4925924	PRINCIPAL	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	1.4 ± 0.3	2016-01-12
4925922	SPEECH	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	5.4 ± 0.5	2016-01-12
4925934	STAFF RM	2016-01-05 @ 11:00 am	2016-01-08 @ 2:00 pm	2.0 ± 0.3	2016-01-12