INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

Hallman Elementary School

Report to: Vonnie B. Good, EHS Salem Keizer School District
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On-site: December 9-12, 2014
Report: December 31, 2014

PURPOSE

Radon testing was done to measure the background levels in all classrooms, offices and staff work rooms that are in contact with the ground.

TEST METHOD

Radon Air-Chek short-term test devices were used in each location by placing the device 5-6 feet above the floor where it is not in direct contact with airflow from the ventilation system, windows or exterior doors. Staff were requested to keep windows closed during the testing period.

These short-term devices work by trapping room air inside the grains of charcoal within the devices, meaning that live radon gas is being captured. The analysis is performed by measuring the radiation emitted from the charcoal, which is proportional to the amount of radon that was present in the room air.

The testing occurred from Tuesday, December 9 to Friday, December 12, 2014, during normal and routine operation of the school.

EPA RADON GUILDELINES

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:

RESULTS and RECOMMENDATION

No test locations were above the EPA's Action Level of 4.0 picoCuries per liter (pCi/l).

BACKGROUND ON RADON

Radon is a gas that occurs in nature, seeping up from the earth. It is odorless, colorless and tasteless. Radon comes from the natural breakdown, or radioactive decay, of Uranium 238. The half-life of an individual element is relatively short. Within two weeks, about 90% of a given amount of radon gas will be gone. However, the actual health concern is for the radon decay products, called radon progeny, which carry a small static charge that allows their attachment to water vapor, dust and smoke particles in the air.

The Radon progeny can become lodged in the lung tissue when they are inhaled, and it is these particles' further radiation decay that is associated with potential lung cancer effects.

Radon can seep into buildings or schools through cracks in slab floors or porous cinderblock. It can enter around loose-fitting drainage pipes or through sump pumps.

The US EPA has set an Action Level of 4.0 pCi/L. At or above this level of radon, the EPA recommends that corrective measures should be taken to reduce the exposure to radon gas.

CONTROL OF RADON LEVELS IN SCHOOLS

The major control mechanism for lowering radon levels within school buildings is use of dilution ventilation. If the amount of outside air delivered into a building increases, the radon levels should decrease.

Sample Data Attached

December 16, 2014 **** LABORATORY ANALYSIS REPORT ****

Radon test result report for:
SCHOOL
HALLMAN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
7015514	ASSIST PRINC	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	1.0	2014−12−15
7015512	CONF RM	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015525	COUNSELING	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015530	CUSTODIAN	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015529	KITCHEN	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015531	LRC OFFICE	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015526	MUSIC	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	1.1	2014−12−15
7015511	OFFICE MANAGER	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	0.7	2014−12−15
7015528	PE	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	0.6	2014−12−15
7015510	PRINCIPAL	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	1.6	2014−12−15
7015515	RM 101	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015516	RM 102	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	1.1	2014−12−15
7015517	RM 103	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	0.8	2014−12−15
7015518	RM 104	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	0.7	2014−12−15
7015519	RM 105	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	0.8	2014−12−15
7015520	RM 106	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	0.8	2014−12−15
7015521	RM 107	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015522	RM 108	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	0.5	2014−12−15
7015523	RM 109	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	0.8	2014−12−15
7015524	RM 110	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015527	SPEECH	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15
7015513	STAFF WORK RM	2014−12−09 @ 11:00 am	2014−12−12 @ 1:00 pm	< 0.3	2014−12−15

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