

INDUSTRIAL HYGIENE REPORT

RADON TESTING REPORT

Central Services Center

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

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On-site: February 24–27, 2015

Report: March 5, 2015

PURPOSE

Radon testing was done to measure the background levels in all 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 or exterior doors.

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, February 24 to Friday, February 27, 2015, during normal and routine operations in the building.

EPA RADON GUIDELINES

The EPA has set an Action Level of 4.0 pCi/L (picoCuries per liter) for schools, businesses and homes. If buildings have radon levels at or above 4.0 pCi/L, EPA recommends actions should be taken 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 SCHOOL BUILDINGS

The major control mechanism for lowering radon levels within 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

March 3, 2015

**** LABORATORY ANALYSIS REPORT ****

Radon test result report for:

**SCH ADM
CENT SERV**

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
4777044	BREAKROOM	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777045	BUYER 1	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	0.6	2015-03-02
4777047	BUYER 2	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777048	BUYER 3	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	0.5	2015-03-02
4777049	BUYER 4	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	0.7	2015-03-02
4777043	CONF RM	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777053	CONSTR CONF RM 1	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777054	CONSTR CONF RM 2	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777055	CONSTRUCT BREAKR	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	0.6	2015-03-02
4777039	CUSTODIAN SUPERV	2015-02-24 @ 8:00 am	2015-02-27 @ 8:00 am	< 0.3	2015-03-02
4777056	DISCIPLINE HEARI	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777040	FACILITIES COORD	2015-02-24 @ 8:00 am	2015-02-27 @ 8:00 am	< 0.3	2015-03-02
4777037	LEADS OFFICE	2015-02-24 @ 8:00 am	2015-02-27 @ 8:00 am	< 0.3	2015-03-02
4777051	LM COORD	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777038	MAINT SUPERVISOR	2015-02-24 @ 8:00 am	2015-02-27 @ 8:00 am	< 0.3	2015-03-02
4777041	MANAGER OF CUSTO	2015-02-24 @ 8:00 am	2015-02-27 @ 8:00 am	< 0.3	2015-03-02
4777042	MANAGER OF MAINT	2015-02-24 @ 8:00 am	2015-02-27 @ 8:00 am	< 0.3	2015-03-02
4777052	PURCHASING CONF	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777050	PURCHASING COORD	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777057	STUDENT RECORD R	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777058	WAREHOUSE MANAGE	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02
4777046	WAREHOUSE OFFICE	2015-02-24 @ 8:00 am	2015-02-27 @ 9:00 am	< 0.3	2015-03-02

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