



January 10, 2019

Joe Crelier
Director of Risk Management
Portland Public Schools
501 N Dixon Street
Portland, Oregon 97227

Via email: jcrelier@pps.net

Regarding: District-Wide Radon Testing
Cesar Chavez K-8
5103 N Willis Boulevard
Portland, Oregon 97203
PBS Project 6500.618, Phase 0005, Task 001

Dear Mr. Crelier:

From December 4 to 7, 2018, PBS Engineering and Environmental Inc. (PBS) performed short-term radon testing at Cesar Chavez K-8 located at 5103 N Willis Boulevard in Portland, Oregon.

The Environmental Protection Agency (EPA) and Oregon Health Authority (OHA) recommend that buildings be tested for radon and that any radon concentrations be maintained below 4.0 picocuries per liter (pCi/L) of air. PBS used Air Chek, Inc., brand single-use, short-term radon test kits to measure radon levels in frequently-occupied rooms that are in contact with the ground or above unoccupied basements or crawlspaces.

The following table lists the samples with radon levels above the EPA action level.

Test Kit with Radon 4.0 pCi/L or above

Test Kit Number	Sample Location	Radon Level (pCi/L)
9123235	019	7.1
9123215	Media Office 152	4.6
9123226	Room 163	5.8
9123227	Room 164	8.4

Following OHA protocol, samples with initial results equal to or greater than 4.0 pCi/L are currently being retested with long-term radon test kits.

See the attached laboratory analysis report for more details.

In addition to the EPA recommendation that radon concentrations not exceed 4.0 pCi/L, OHA recommends that the following steps be conducted based on the results of a room's initial short-term test:

- **If the result is less than 2.0 pCi/L**, school districts are required to test again every 10 years, per Oregon Revised Statute 332.166-167.
- **If the result is between 2.0 pCi/L and 4.0 pCi/L**, consider fixing (i.e., lowering) the radon in that room.
- **If the result is from 4.0 pCi/L to 8.0 pCi/L**, perform a follow-up measurement of that room using a long-term test. This test should be conducted over as much of a nine-month school year as possible, when the room is likely to be occupied. If that result is equal to or greater than 4.0 pCi/L, the radon in the room should be fixed (i.e., lowered).
- **If the initial short-term test result is equal to or greater than 8.0 pCi/L**, conduct a second short-term test and average its result with the initial short-term test result. If the average of the two is equal to or greater than 4.0 pCi/L, radon in the room should be fixed (i.e., lowered).

Note: A great difference in the results of the short-term tests may indicate a flaw in the testing process. Investigate and consider retesting. For situations in which one of the test results is equal to or greater than 4.0 pCi/L, if the higher result is two or more times the lower result, repeat the test.

LIMITATIONS OF SCOPE

This study was limited to the tests and locations as previously indicated. The site as a whole may have other environmental concerns that will not be characterized by this study. The findings and conclusions of this work are not scientific certainties, but probabilities based on professional judgment concerning the significance of the data gathered during the course of this investigation. PBS is not able to represent conditions on the site or adjoining sites beyond those detected or observed by PBS.

Please feel free to contact me at 503.417.7691 or clark.nelson@pbsusa.com with any questions or comments.

Sincerely,

Clark Nelson
Project Manager

Attachment: Air Chek, Inc., Laboratory Analysis Report

CN:mo

Radon test result report for:
CESAR CHAVEZ
MAIN

Kit #	Room Id	Started	Ended	pCi/L	Analyzed
9123235	019	2018-12-11 @ 10:00 am	2018-12-14 @ 11:00 am	7.1 ± 0.5	2018-12-17
9123234	021	2018-12-11 @ 10:00 am	2018-12-14 @ 11:00 am	< 0.3	2018-12-17
9123228	GYM	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	1.6 ± 0.3	2018-12-17
9123219	GYM	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	1.0 ± 0.3	2018-12-17
9123216	GYM OFF 138	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	1.1 ± 0.3	2018-12-17
9123221	GYM OFF 141	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	1.1 ± 0.3	2018-12-17
9123213	MAIN OFFICE	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9123224	MEDIA CENTER	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	2.6 ± 0.4	2018-12-17
9123229	MEDIA CENTER	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	3.1 ± 0.4	2018-12-17
9123215	MEDIA OFF 152	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	4.6 ± 0.4	2018-12-17
9123212	NURSE	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9123233	PRINCIPAL	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9123210	RM 104	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	0.8 ± 0.3	2018-12-17
9123211	RM 108	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	1.1 ± 0.3	2018-12-17
9123206	RM 115	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9123205	RM 115 DUP	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9123204	RM 116	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9119790	RM 117	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9123208	RM 118A OFFICE	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	0.6 ± 0.3	2018-12-17
9123201	RM 134	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9123207	RM 135	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	< 0.3	2018-12-17
9123214	RM 149	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	2.0 ± 0.3	2018-12-17
9123225	RM 149 DUP	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	1.4 ± 0.3	2018-12-17
9123226	RM 163	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	5.8 ± 0.5	2018-12-17
9123227	RM 164	2018-12-11 @ 11:00 am	2018-12-14 @ 12:00 pm	8.4 ± 0.6	2018-12-17
9123223	RM 165	2018-12-11 @ 11:00 am	2018-12-14 @ 11:00 am	< 0.3	2018-12-17
9123222	RM 169	2018-12-11 @ 10:00 am	2018-12-14 @ 11:00 am	< 0.3	2018-12-17
9123220	RM 170	2018-12-11 @ 10:00 am	2018-12-14 @ 11:00 am	< 0.3	2018-12-17
9123240	RM 171	2018-12-11 @ 10:00 am	2018-12-14 @ 11:00 am	2.7 ± 0.4	2018-12-17
9123218	RM 173	2018-12-11 @ 10:00 am	2018-12-14 @ 11:00 am	0.7 ± 0.3	2018-12-17
9123203	RM 174	2018-12-11 @ 10:00 am	2018-12-14 @ 11:00 am	0.8 ± 0.3	2018-12-17
9123202	RM 174 BLANK	2018-12-11 @ 10:00 am	2018-12-14 @ 11:00 am	< 0.3	2018-12-17