

August 20, 2020

Christopher M. Arnold, CHFM
Director of Buildings and Grounds
Grand Forks Public Schools
2400 47th Ave S.
Grand Forks, ND 58201

Dear Mr. Arnold:

This letter is in regard to the short-term radon testing that was conducted on March 10-12, 2020, at the Discovery Elementary School building located at 3300 43rd Avenue South, Grand Forks, North Dakota. The short-term radon test kits were deployed at your request to determine the radon levels in each room that was tested. The testing was conducted by Wyatt Peterson, an Environmental Scientist and Justin Otto, Radon Coordinator with the North Dakota Department of Environmental Quality (Department).

Along with this letter are two attachments. Attachment 1 is floor plans with the layout of the Discovery Elementary School building that indicates the location of the radon test kits. Attachment 2 shows the results of the short-term radon tests for each room that was tested. The initial short-term radon test results that were open for the entire testing period ranged from <0.4 to 2.2 picocuries per liter (pCi/L). 62 out of 63 radon test kits were analyzed for radon. The continuous radon monitors did not record data to be analyzed for this location, but there was a short-term radon test kit that was analyzed in the same location as Room 154. 62 out of 62 radon test results are below the EPA action level of 4.0 pCi/L. The results may be questionable for 3 out of the 62 short-term radon test kits due to conditions that occurred during the test period. In Room 153, the radon test kit was moved under a vent. In Room 164, the radon test kit was covered up. The Department recommends retesting all the rooms that are stated above due to the radon test kits not meeting radon test protocol.

The short-term radon test kits ID Nos. AE691894, AE691848 and AE691907 are blanks. Blanks are radon test kits that are not exposed to room air and are used to determine whether the test kits have been contaminated during storage. Blanks are opened and immediately re-sealed to keep room air from infiltrating the test kit. The blanks at this location came back at less than detectable (<). This indicated the radon test kits were not contaminated during storage since the laboratory's test kit analyzer did not detect any radon.

The short-term radon test kits ID Nos. AE691902 and AE691858 located in Room 122, AE691885 and AE691870 located in Room 114, AE691908 and AE691879 located in the Cafe, AE691906 and AE691914 located in the Room 163 and are duplicates; duplicate measurements were conducted as a means to assess precision of measurements. Following EPA Radon Measurement in school testing protocol, EPA 402-R-92-014, the duplicate measurements are in compliance. AE691849 and AE691838 located in Room 153 was a duplicate but, can't be used

because the radon test kits were moved under a HVAC vent. results of the collocated duplicates are provided in Attachment 2.

The Department determined 59 out of 62 short-term radon test kits followed all the radon test kit protocols.

The Department recommends retesting Room 153 and Room 164 since the radon test kits did not meet radon test protocol. The Department recommends rerunning the radon test kits in question to show that the results are accurate. Testing can be scheduled at a time that will allow these rooms to meet the closed-building condition protocol 12 hours prior to testing and remain closed through the radon testing period. No further radon testing is needed at this time for the other 59 radon test kits that are not questionable. The Department recommends that each building be tested for radon if the HVAC system has been modified in any way or remodeling has been performed. There is an uncertainty with any measurement result due to statistical variations and other factors such as daily and seasonal variations in radon concentrations. Variations may be due to changes in the weather, operation of the dwelling, or possible interference with the necessary test conditions.

If you have any questions, please contact me at 701-328-5246.

Sincerely,



Justin L. Otto
Environmental Scientist
Radon & Indoor Air Program

JLO:mkg
Attach:

