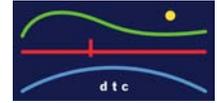


Now is the Time to Test for Radon At Your School



By: Joy Kloss, CHMM, DTC Project Engineer

You may have heard the term “radon” before, maybe on the news or at your local health department, but the truth is few actually know what it is, or the effects it can have on you and your child.

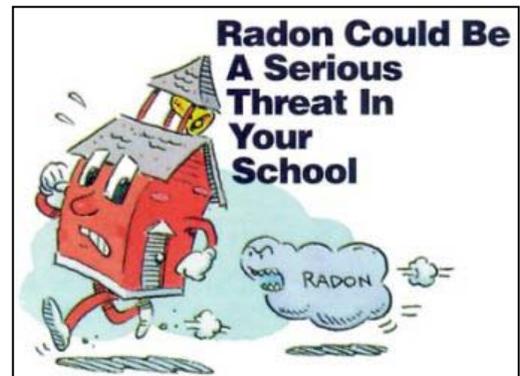
What is radon?

Radon is a naturally occurring radioactive gas that comes from the breakdown of uranium found in soil and rock.

What you might not know

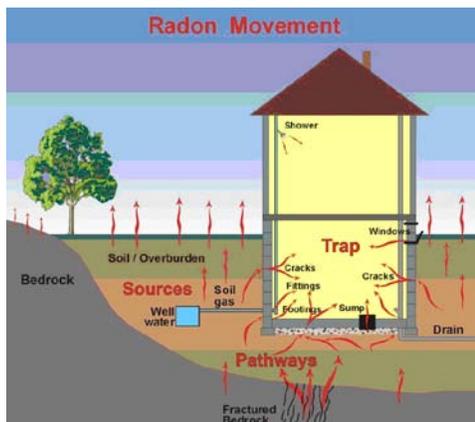
The truth is that high radon levels have been found in many classrooms in Connecticut.

A known human carcinogen, radon is colorless, odorless, and tasteless. Exposure to elevated radon levels over an extended period of time increases the risk of developing lung cancer.



The unique properties of radon are what make it so hazardous. You can't see, smell, or taste it; therefore, there is no way of knowing if you are being exposed unless you test for it.

How radon gets from the soil into the classroom



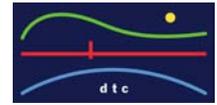
Radon levels can rise during the winter months because stack effect tends to be greater as warm air within the building rises and escapes to the colder air outside. Stack effect is the vertical airflow within buildings caused by temperature differences between the building interior and exterior. As air escapes, the building has to replace the air to equalize pressure, which tends to come from the soil below, and could contain radon gas.

During the winter months the ground in Connecticut can freeze, creating a blanket and trapping radon gas below the ground surface. Since less radon in the soil is able to escape through the ground surface, the building may be pulling up air with higher concentrations of radon.

The importance of testing

Connecticut General Statute (C.G.S.) Sec. 10-220(d) states that “prior to January 1, 2008 and every five years thereafter, all schools shall be evaluated for radon levels as part of a uniform inspection and evaluation of the indoor air quality in buildings. Radon testing shall be performed by a certified professional during the coldest months (November 1st through March 31st).”

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It is important to be aware that a potential problem could exist at your school. If you are concerned, DTC's Certified Radon Measurement Provider is available to assist you with any questions or concerns you may have.

How testing works

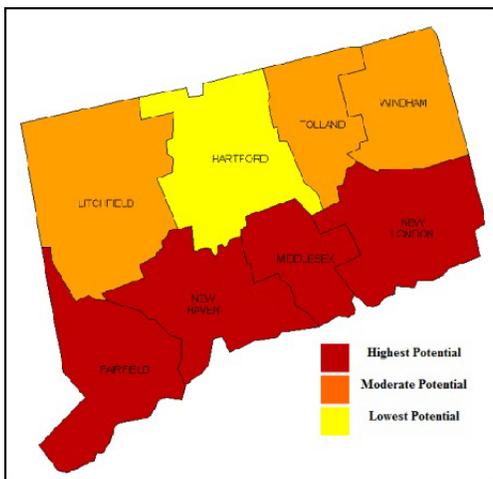
DTC performs indoor air sampling for radon during the winter months (November 1- March 31) when the school's heating and ventilation system is in normal operation. The sampling is performed using the detailed testing protocol in the [Connecticut Department of Public Health \(CT DPH\) Health Radon Testing Guidance Document for Schools](#).

Prior to the radon sampling event, DTC meets with the school's principal to present an overview of the radon sampling approach. DTC also assists the school's administration to notify parents, students, and staff by providing a letter informing them of the scheduled radon testing accompanied by appropriate educational materials (i.e. the [CT DPH Radon in Schools pamphlet](#)).



Two weeks after the notification has been sent out, 3-inch passive diffusion charcoal canisters are placed in all of the frequently occupied classrooms that are in contact with the ground. They are left in place for approximately three days. Once they are retrieved, they are immediately sent to a certified lab for analysis.

Interpretation of the results and mitigation



The Environmental Protection Agency (EPA) recommended action level for radon in air is 4.0 picoCuries per liter (pCi/L). If the initial test results indicate concentrations exceeding 4.0 pCi/L, follow-up testing is required. Radon mitigation is appropriate only for classrooms where the initial and follow-up short-term radon test results average at 4.0 pCi/L or more. If this is the case, it is recommended that school administration hire a Certified Radon Mitigation Professional to reduce the radon to acceptable levels.

Additionally, according to C.G.S. Sec 10-291(b), all new school construction in Connecticut in the high and moderate radon potential zones are required to include radon resistant techniques. Therefore, it may be as simple as activating your passive system.

Either way, if radon is detected in your school, the problem can be easily resolved.