



Radon in Real Estate Transactions

All Minnesota homes can have dangerous levels of radon gas. Radon is a colorless, odorless and tasteless **radioactive gas** that can seep into homes from the soil. When inhaled, its radioactive particles can damage the lungs. Long-term exposure to radon can lead to **lung cancer**. About 21,000 lung cancer deaths each year in the United States are caused by radon.

The only way to know how much radon gas has entered the home is to conduct a radon test. MDH estimates 2 in 5 homes exceed the 4.0 pCi/L (picocuries per liter) action level. Whether a home is old or new, **any home can have high levels of radon**.

The purpose of this publication is to educate and inform potential home buyers of the risks of radon exposure, and how to test for and reduce radon as part of real estate transactions.

Disclosure Requirements

Effective January 1, 2014, the Minnesota Radon Awareness Act requires specific disclosure and education be provided to potential home buyers during residential real estate transactions in Minnesota. **Before signing a purchase agreement to sell or transfer residential real property**, the seller shall provide this publication and shall disclose in writing to the buyer:

1. whether a radon test or tests have occurred on the property
2. the most current records and reports pertaining to radon concentrations within the dwelling
3. a description of any radon levels, mitigation, or remediation
4. information on the radon mitigation system, if a system was installed
5. a radon warning statement

Radon Facts

How dangerous is radon? Radon is the number one cause of lung cancer in non-smokers, and the second leading cause overall. Your risk for lung cancer increases with higher levels of radon, prolonged exposure, and whether or not you are a current smoker or former smoker.

Where is your greatest exposure to radon? For most Minnesotans, your greatest exposure is at home where radon can concentrate indoors.

What is the recommended action based on my results? If the average radon in the home is at or above 4.0 pCi/L, the home's radon level should be reduced. Also, consider mitigating if radon levels are between 2.0 pCi/L and 3.9 pCi/L. Any amount of radon, even below the recommended action level, carries some risk.

Radon Warning Statement

"The Minnesota Department of Health strongly recommends that ALL homebuyers have an indoor radon test performed prior to purchase or taking occupancy, and recommends having the radon levels mitigated if elevated radon concentrations are found. Elevated radon concentrations can easily be reduced by a qualified, certified, or licensed, if applicable, radon mitigator.

Every buyer of any interest in residential real property is notified that the property may present exposure to dangerous levels of indoor radon gas that may place the occupants at risk of developing radon-induced lung cancer. Radon, a Class A human carcinogen, is the leading cause of lung cancer in nonsmokers and the second leading cause overall. The seller of any interest in residential real property is required to provide the buyer with any information on radon test results of the dwelling".

Radon Testing

Any test lasting less than three months requires **closed-house conditions**. This means keep all windows and doors closed, except for normal entry and exit.

Before testing: Begin closed-house conditions at least 12 hours before the start of the radon test.

During testing: Maintain closed-house conditions during the entire duration of the short-term test. Operate home heating or cooling systems normally during the test.

Where should the test be conducted? Any radon test conducted for a real estate transaction needs to be placed in the lowest livable area of the home suitable for occupancy. This is typically in the basement, whether finished or unfinished.

Place the test kit:

- twenty inches to six feet above the floor
- at least three feet from exterior walls
- four inches away from other objects
- in a location where it won't be disturbed
- not in enclosed areas or areas of high heat or humidity

How are radon tests conducted in real estate transactions?

There are special protocols for radon testing in real estate transactions. Here are the two most common.

Continuous Radon Monitor

This test is completed by a certified radon measurement professional with a calibrated CRM for a minimum of 48 hours. The data is analyzed to ensure a valid test. A report is generated by the measurement professional.

Simultaneous Short-Term Testing

Two short-term test kits are used at the same time, placed 4 inches apart, for a minimum of 48 hours. Test kits are sent to the lab for analysis. The lab generates a report. The two test results are averaged to get the radon level.

All radon tests should be conducted by a certified and MDH-listed professional. This ensures the test was conducted properly, in the correct location, and under appropriate building conditions. A list of these radon measurement professionals can be found at MDH's Radon web site.

Radon Mitigation

When elevated levels of radon are found, they can be easily reduced by a nationally certified and MDH-listed radon mitigation professional.

Radon mitigation is the process or system used to reduce radon concentrations in the breathing zones of occupied buildings. The goal of a radon mitigation system is to reduce the indoor radon levels to below the action level. This is done by drawing soil gas from under the house and venting it above the roof. A quality mitigation system is often able to reduce the annual average radon level to below 2.0 pCi/L. The cost of a radon mitigation system averages \$1,200 to \$2,500.

After a radon mitigation system is installed perform an independent short-term test to ensure the reduction system is effective. Operate the radon system during the entire test. This short-term test will confirm low levels in the home. Be sure to retest the house every two years to confirm continued radon reduction.

Radon Information on the Web:
www.health.state.mn.us/radon

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