

What a 48 Hour Radon Test Can Tell You About Your St. Louis Home

If you are buying or selling a home in the St. Louis area, you have probably heard that radon testing is part of the deal. But the type of test matters more than most people realize. A standard charcoal canister test sits in your basement for two to seven days, then gets mailed to a lab. It gives you one number, and that is it. A 48 hour radon test using a continuous radon monitor works differently. It records radon levels hour by hour, so you can see exactly when the radon gas spikes and when it drops. That difference can change how you read the results.

Why the St. Louis Area Has a Radon Problem

Missouri radon levels are higher than the national average. The geology across much of the state, including the St. Louis metro area, contains uranium-bearing granite and shale. As that rock breaks down, it releases radon gas into the soil. That gas seeps into homes through cracks in the foundation, sump pumps, floor drains, and gaps around utility lines. Basement radon is especially common here because many St. Louis homes have finished or unfinished basements that sit directly on that soil.

The EPA recommends that homeowners take action if a test shows radon levels at or above 4.0 picocuries per liter (pCi/L), which is the radon action level. But the EPA also says you should consider fixing your home if levels are between 2.0 and 4.0 pCi/L. In St. Louis, it is not unusual to see results in that range. That is why getting a reliable short-term radon test matters before you close on a house or decide whether to install a radon system.

How a 48 Hour Radon Test Differs from Other Methods

Most people first encounter radon testing during a real estate transaction. The buyer or seller orders a test, and a professional places a detector in the lowest livable area of the home. For decades, the go-to method was a charcoal canister test. You break the seal, let it sit for a few days, then seal it back up and mail it to a lab. The lab crunches the numbers and sends back a report. It is simple and cheap, but it has real limits. The charcoal canister absorbs radon passively, and the lab averages everything over the whole test period. You never know if the radon levels were high for one day and low for the next, or if they stayed steady.

A [48 hour radon test](#) using a continuous radon monitor solves that problem. The monitor sits in the room, plugged into a wall outlet, and takes a measurement every hour, sometimes every ten minutes. It stores those readings and prints out a time-stamped report. You can see the morning spike when the furnace kicks on and pulls soil gas into the house, or the afternoon dip

when someone opens a window. That level of detail helps you understand whether the radon levels are truly a problem or just a temporary blip.

Another common test is the alpha track test, which is a long-term radon test that stays in place for three months to a year. It gives you an annual average, which is useful for deciding whether to install a mitigation system. But in a real estate transaction, you usually do not have three months. You need answers in days. That is where the short-term radon test comes in, and the continuous monitor is the best tool for that job.

When You Should Choose a Continuous Monitor Test

If you are a home buyer in St. Louis, I recommend asking for a continuous radon monitor test rather than a charcoal canister. Here is why. A charcoal test can be tampered with, either accidentally or on purpose. If someone opens a window during the test period, the charcoal canister never records that. It just sees lower radon levels and reports a lower average. A continuous monitor records every hour. If the radon levels suddenly drop at 2 PM every day, that is a red flag. The report shows it, and you can ask questions.

Continuous monitors also reduce the chance of a false negative. Radon levels fluctuate with weather, barometric pressure, and heating cycles. A two-day test that happens to fall during a windy, low-pressure system might show very low levels, even though the home has a real radon problem. A continuous monitor captures those fluctuations. If the radon levels spike at night and drop during the day, you see that pattern. A charcoal test just gives you a number that might be misleadingly low.

Air Sense Environmental, which provides home radon testing for St. Louis buyers and sellers, uses continuous monitors for exactly this reason. Their approach gives every party in the real estate transaction a clearer picture of what is happening in the house. You get a report that shows the radon levels hour by hour, so you know the results are honest.

What the Results Actually Mean

When the 48 hour radon test comes back, the report will show the average radon level over the test period. If that average is above 4.0 pCi/L, the EPA says you should take action. That usually means hiring a radon mitigation contractor to install a radon system, often a sub-slab depressurization system with a fan and pipe that vents the gas outside. RadonAway is a common brand for those fans, and many local contractors install them.

If the average is between 2.0 and 4.0 pCi/L, the decision is less clear. Some buyers ask the seller to install mitigation anyway. Others decide to live with it and test again later with a long-term radon test. A continuous monitor test helps you make that call because you can see how often the levels actually exceed the action level. If the average is 3.5 but the levels hit 8.0 every

night, that is different from an average of 3.5 with a steady reading of 3.5 all day. The hourly data gives you the full story.

One thing that surprises many home buyers is that the radon test must be done with the house in "closed-house conditions." That means all windows and doors are shut, except for normal entry and exit. The HVAC system runs normally. The test should not be moved or disturbed. If someone opens a window for an hour, the test may need to be restarted. A continuous monitor will catch that because the radon levels will drop suddenly. A charcoal canister will not.

Radon Mitigation Is Not as Hard as You Think

If your test comes back high, do not panic. Radon mitigation is a well-understood process. A contractor will install a vent pipe through the basement floor, connect it to a fan, and run the pipe up to the roofline. The fan runs continuously, pulling radon from under the slab and discharging it outside. After installation, you should test again with a short-term radon test to confirm the system is working. Many contractors guarantee the result will be below 2.0 pCi/L.

The cost of mitigation in St. Louis typically ranges from \$800 to \$2,500, depending on the house. That is a small price compared to the health risk. Radon is the second leading cause of lung cancer after smoking, according to the EPA. It is a radioactive gas that you cannot see, smell, or taste. Testing is the only way to know if it is in your home.

Final Thoughts on Testing for Real Estate Transactions

If you are selling a home, ordering a 48 hour radon test before listing can save you headaches later. You will know the radon levels ahead of time, and you can decide whether to mitigate before the buyer asks for it. That puts you in control. If you are buying, make sure the test is done with a continuous radon monitor, not just a charcoal canister. The extra detail is worth the small additional cost.

Whether you are a buyer, seller, or just a homeowner who wants peace of mind, the key is to test with a method you can trust. A 48 hour radon test using a continuous monitor gives you that trust. It shows you the real story of what is happening in your home, hour by hour, so you can make an informed decision about your family's health and your biggest investment.