

Why a Continuous Radon Monitor Matters for St. Louis Home Buyers and Sellers

When you are in the middle of a real estate transaction, every inspection report carries weight. Home buyers want reassurance that the property is safe, and sellers want a clean bill of health so the deal can move forward. Radon testing often becomes a sticking point, because the results depend on the method used and the conditions inside the house. I have seen deals stall over a single charcoal canister test that came back slightly elevated, only to have a follow-up with a continuous radon monitor tell a different story.

Radon is a radioactive gas that comes from the natural decay of uranium in soil. It seeps into homes through cracks in the foundation, gaps around sump pumps, openings near radon vent pipes, and even through the water supply in some areas. St. Louis sits on geology that can produce elevated radon levels, so testing is not just a box to check during a home inspection. It is a genuine health concern. The EPA radon guidelines recommend action when levels reach 4 picocuries per liter of air, but many experts suggest considering mitigation even between 2 and 4 pCi/L.

The problem with a single short-term radon test is that it captures only a snapshot of conditions. Radon levels fluctuate with weather, season, and how the house is used. A short-term radon test using an activated carbon device or an alpha track detector might give you a number, but that number can vary widely depending on whether the basement ventilation was running, whether windows were open, or whether a fan system was operating. That is where a [continuous radon monitor](#) changes the game. Instead of one average reading, it records levels over hours or days, showing peaks and valleys that a passive measurement would miss.

How a Continuous Radon Monitor Works

A continuous radon monitor is an electronic device that samples the air at set intervals, often every hour, and stores the results. It uses active measurement technology, meaning it pulls air into a detection chamber and measures the decay products of radon. This is different from passive measurement devices like charcoal canisters or alpha track detectors, which rely on the natural diffusion of gas into a container and must be sent to a lab for analysis. The continuous monitor gives you data in real time, which is invaluable during a real estate transaction when time is tight.

In my experience, the biggest advantage of a continuous radon monitor is that it catches the variability. I once tested a house in St. Louis where the basement had a sump pump and a radon vent pipe that seemed to be working fine. The short-term charcoal test came back at 3.8 pCi/L, just under the EPA action level. But when we placed a continuous monitor, we saw that

levels spiked to over 7 pCi/L during a heavy rainstorm when the soil saturation pushed gas up through the slab. That spike would have been missed by a passive device, and the buyers would have moved in unaware. A radon mitigation contractor was able to install a fan system on the vent pipe, and the continuous monitor confirmed the fix brought levels down to around 1 pCi/L. That kind of feedback is only possible with active measurement.

Short-Term vs. Long-Term Testing in Real Estate

Most real estate transactions rely on a short-term radon test, typically lasting 48 to 96 hours. The reason is practical: buyers and sellers want answers fast, and a long-term radon test that lasts three months to a year is rarely feasible during a closing timeline. But a short-term test has limitations. It can be influenced by closed windows, a single storm, or even the HVAC schedule. That is why the EPA radon guidelines recommend that if a short-term test comes back above 4 pCi/L, you should do a follow-up test before spending money on mitigation. A continuous radon monitor is the best tool for that follow-up because it provides a detailed picture of how levels change over the testing period.

I have worked with home inspection teams in St. Louis where we placed both a charcoal canister and a continuous radon monitor side by side. The charcoal canister gave us a single number, while the continuous monitor showed us that the highest levels occurred at night when the house was closed up and the basement ventilation was off. That information helped the buyer decide to install a simple fan system to improve air circulation, rather than a full sub-slab depressurization system. The cost difference was significant, and the continuous monitor gave them confidence in the fix.

What a Continuous Radon Monitor Reveals About Mitigation

Radon mitigation is not a one-size-fits-all solution. Some homes need a radon vent pipe with a fan system to create soil suction under the slab. Others might only need better basement ventilation or sealing around the sump pump. Without a continuous radon monitor, it is hard to know whether the mitigation is working. I have seen contractors install a system and then walk away, only to have the homeowner call months later because levels are still high. A post-mitigation test with a continuous monitor can show whether the fan system is pulling enough air and whether there are still entry points for the gas.

One concrete example: a house in south St. Louis had a radon vent pipe that was installed years ago but never connected to a fan. The passive vent relied on natural stack effect, but it was not enough. The short-term test came back at 5.2 pCi/L. The seller agreed to install a fan, and the contractor recommended a continuous radon monitor to verify the fix. Over three days of testing, the monitor showed levels dropping from 5.2 to 1.8 pCi/L within the first 24 hours, with occasional small spikes when the fan cycled off briefly. That data gave everyone involved,

the buyer, the seller, and the real estate agent, the confidence to proceed with the closing disclosure without delays.

Choosing the Right Test for Your Situation

Not every home radon test needs a continuous monitor. If you are doing a long-term radon test for your own peace of mind, an alpha track detector is a reliable and cost-effective passive measurement device. It integrates the radon level over months and gives you a good annual average. But if you are in the middle of a real estate transaction, or if you have already seen an elevated short-term test, a continuous radon monitor is worth the investment. The detailed results can prevent unnecessary mitigation costs or, conversely, catch a problem that a passive test might miss.

Air Sense Environmental provides continuous radon monitor testing for St. Louis homes, and I have seen how their reports help buyers and sellers make informed decisions. The key is to use the right tool for the job. A charcoal canister is fine for a quick screening, but if you want to understand the actual pattern of radon entry, you need active measurement that shows you the hourly changes. That is what a continuous radon monitor delivers.

Practical Tips for Homeowners

- If you are buying a home, request a continuous radon monitor test as part of your home inspection contingency. It gives you more data than a passive device.
- If you are selling, consider testing with a continuous monitor before listing. A clean report with detailed hourly data can be a strong selling point and avoid surprises later.
- After radon mitigation, always do a follow-up test with a continuous monitor to confirm the system is working. A single charcoal test might not catch intermittent issues.
- Keep the house closed for at least 12 hours before any radon test, and maintain normal living conditions during the test. This applies to both passive and active measurement.

Radon testing is not something to rush through. The difference between a passive measurement and an active one can be the difference between a false sense of security and a real understanding of your home's radon risk. For St. Louis homeowners, where the geology can produce pockets of higher radon, a continuous radon monitor is not just a fancy gadget. It is a practical tool that gives you the data you need to protect your family and move a real estate transaction forward with confidence.