

Why Regular Radon System Inspection Matters for St. Louis Homeowners

If you live in St. Louis and already have a radon mitigation system in your basement or crawlspace, you might think the work is done. You paid for the installation, the fan runs, and the manometer shows a reading. But a radon system is not a set-it-and-forget-it appliance. Like a furnace or a sump pump, it needs periodic attention. A professional radon system inspection can catch small issues before they turn into big ones, and it can save you from living with elevated radon levels without knowing it.

I have been in the radon mitigation field for years, and I have seen plenty of systems that looked fine on the surface but were actually failing. The homeowner had no idea because the only sign was a subtle change in the manometer fluid level or a faint vibration in the radon vent pipe. By the time someone thought to call for a check, the system had been underperforming for months. That is why I recommend scheduling a radon system inspection at least once a year, and more often if you have had work done in the basement or if your home has settled.

What a Radon System Inspection Actually Covers

A thorough inspection is not just a glance at the fan. It is a systematic check of every component in the active soil depressurization system. The EPA recommends that homeowners verify their radon reduction system is working properly, and the best way to do that is with a hands-on inspection by someone who knows what to look for. Here is what a good inspection should include:

- Checking the manometer and confirming the U-tube manometer shows the correct negative pressure range. A drop in pressure often means a blockage or a fan motor issue.
- Inspecting the radon fan for unusual noise, vibration, or moisture buildup. Fans that run constantly can wear out faster than expected, especially in unconditioned spaces.
- Examining the pipe routing for cracks, loose joints, or areas where the radon vent pipe might have been bumped or shifted. Even a small gap can let radon back into the house.
- Looking at the sealing cracks around the slab and the sump cover. Over time, concrete can shrink or move, and those sealed gaps can reopen.
- Testing the system with a radon test kit or a continuous monitor to confirm that indoor radon levels are still below the EPA action level of 4 picocuries per liter.

That last point is crucial. A system can be running and still not pulling enough radon from beneath the slab. The only way to know for sure is to test. I always tell homeowners that a [radon system inspection](#) is incomplete without a follow-up radon test. The two go together like a lock and key.

Common Problems Found During Inspections

Over the years, I have seen the same issues pop up again and again. One of the most common is a radon fan that has lost efficiency because the fan motor is wearing out. These fans run 24/7, 365 days a year. That is a lot of runtime. A fan that is five or six years old may still spin, but it might not be pulling enough negative pressure to keep radon from entering through the radon entry points. A simple check with a U-tube manometer tells the story. If the reading is lower than it was at installation, something is wrong.

Another frequent finding is a blocked or crushed radon vent pipe. Sometimes a pipe gets moved during a basement remodel or a storage shelf gets pushed against it. Other times, rodents or insects build nests inside the pipe. I have pulled out wasp nests and mouse nests from vent pipes that looked fine from the outside. The only way to catch that is to open the system up and look, which is part of a proper inspection.

Pipe routing itself can be a problem. In some older installations, the pipe takes too many turns or runs too far, which reduces the system vacuum. A well-designed sub-slab depressurization system keeps the pipe run as short and straight as possible. If your system seems to struggle, a radon system inspection might reveal that the pipe routing needs to be reworked. That is a bigger job, but it can make a huge difference in performance.

Why St. Louis Homes Need Extra Attention

St. Louis sits on a mix of limestone, shale, and glacial till that can release radon gas at varying rates. Some neighborhoods have higher baseline radon levels than others, and the geology can change block to block. That means a system that works perfectly in one part of town might need a different fan size or pipe configuration just a mile away. Local experience matters. Air Sense Environmental, for example, knows the St. Louis soil conditions and the typical basement layouts here. That local knowledge makes an inspection more thorough because the inspector knows what to look for in this specific area.

Another factor is the age of the home. Many St. Louis houses were built before radon mitigation was common. The slabs may have control joints that were never sealed, or the sump pump crock might not be connected to the vent system. In those homes, a radon system inspection often finds that the original installation missed some sealing cracks or left a radon entry point unaddressed. Catching those gaps early can prevent radon from sneaking back in.

When to Schedule an Inspection

I usually tell homeowners to put a radon system inspection on their calendar once a year, around the same time they change their furnace filter or test their smoke alarms. That way it becomes a routine. But there are specific times when an inspection is especially important:

- After any major construction or excavation near the foundation. Digging can disturb the soil around the vent pipe or the sub-slab gravel layer.
- If you notice any change in the manometer reading. Even a small drop can mean something is wrong.
- Before selling your home. A recent inspection and a passing radon test add value and peace of mind for the buyer.
- If your system is still under warranty. Some manufacturers require periodic inspections to keep the system warranty valid.

One more thing: if you have ever had a radon system inspection done by the original installer, you might not have a record of it. I recommend keeping a simple log with the date of each inspection, the manometer reading, and the result of any radon test. That history helps spot trends. If the manometer reading drops a little every year, you may be looking at a slow decline in fan performance.

The Difference Between a DIY Check and a Professional Inspection

I am all for homeowners keeping an eye on their system. You can check the manometer yourself, and you can listen for strange noises from the fan. But a professional radon system inspection goes deeper. A trained eye notices things like a slight crack in the radon vent pipe where it passes through the wall, or a seal around the sump that is pulling away. Those details matter because they affect the negative pressure field under the slab.

A professional also has the tools to measure the actual vacuum at different points in the system. That is something a homeowner cannot easily do. And they know the local building codes and EPA guidelines. If your system needs fan replacement, they can match the correct fan to your pipe size and soil conditions. Not all fans are the same, and the wrong fan can waste electricity and still not pull enough suction.

I have also seen cases where a homeowner tried to fix a small issue themselves and accidentally made it worse. For example, someone might tighten a pipe clamp too much and crack the PVC, or they might seal a crack with the wrong material. A professional inspection avoids those pitfalls. It is cheaper in the long run to have someone who knows the system come out once a year than to pay for emergency repairs later.

Final Thoughts on Keeping Your System Healthy

Your radon mitigation system is an investment in your family's health. A properly maintained system keeps radon levels low and gives you peace of mind. But it only works if it is actually running correctly. A radon system inspection is the best way to confirm that everything is working as designed. Whether you call Air Sense Environmental or another qualified local company, make sure the inspection includes a manometer check, a fan motor assessment, a pipe routing review, and a radon test. Skip any one of those steps, and you might miss something important.

If you have not had your system inspected in the last year, now is a good time to call. The cost is small compared to the potential health risk of living with undetected radon. And in St. Louis, with our unique geology and older housing stock, a regular inspection is not just a good idea - it is a necessary part of home maintenance.