

Why You Need a Qualified Radon Mitigation Contractor in St. Louis

I have spent years in the field of indoor air quality, and I still remember the first time I walked into a basement in St. Louis where the radon levels read north of 20 pCi/L. The homeowners had no idea. They had lived in the house for fifteen years, and the only thing they noticed was a musty smell near the sump pump. That smell was a clue, but the real problem was invisible. Radon gas is a silent hazard, and the only way to know you have a problem is to test for it. But once you know, the next step is getting the right help. That is where a qualified radon mitigation contractor becomes essential.

Understanding Radon and Its Risks

Radon gas comes from the natural decay of uranium in soil and rock. It seeps up through the ground and enters buildings through cracks in foundations, gaps around pipes, and other openings. In the St. Louis area, the geology varies widely, from limestone bluffs to heavy clay soils, and that means radon potential is not uniform. Some neighborhoods show consistently low levels, while others have pockets where nearly every house tests high. The EPA has set a recommended action level of 4 pCi/L, but there is no completely safe level. The risk is cumulative, and long-term exposure is the leading cause of lung cancer among non-smokers.



Testing is the only way to know. Short-term tests using activated carbon detectors can give you a quick snapshot, but continuous radon monitors offer more detailed data. I always advise clients to do at least one short-term test in the lowest lived-in level of the home, and if the result is close to the action level, to follow up with a longer test. Once you have confirmed elevated levels, you need a plan for radon mitigation.

What a Radon Mitigation Contractor Does

Not every contractor who offers radon mitigation services has the same level of expertise. A true [radon mitigation contractor](#) specializes in designing and installing systems that reduce radon concentrations in indoor air. The most common method is sub-slab depressurization, often called soil suction. This involves running PVC piping from beneath the basement floor or crawl space up to a point above the roofline, where a fan creates negative pressure under the slab. The fan pulls radon-laden air from the soil and vents it safely outdoors, before it can enter the living space.

But the system is more than just a fan and some pipes. Proper installation requires careful sealing of all major entry points for radon gas. That means sealing cracks in the concrete floor,

gaps around utility penetrations, and the joint where the floor meets the wall. In some homes, especially those with crawl spaces, the approach changes. A crawl space might need a sealed membrane, a separate venting system, or a combination of both. A good contractor knows how to evaluate the specific conditions of your house and design a solution that works.

After installation, the work is not done. A professional radon mitigation contractor will perform post-installation verification, which means running another radon test to confirm that the system is actually reducing levels. They will also install a manometer on the system to show that the fan is operating and the pressure differential is holding. That small gauge is your ongoing assurance that the mitigation system is working, and you can check it visually at any time.

Choosing the Right Contractor in St. Louis

In St. Louis, we have a mix of older homes with stone foundations and newer construction with poured concrete. Each type presents different challenges. I have seen sub-slab depressurization work beautifully in a 1950s ranch with a full basement, but fail in a house with a high water table where the fan could not maintain negative pressure. In those cases, an experienced contractor might recommend a different approach, such as sealing and ventilation, or a combination of methods.

When you look for a radon mitigation contractor, ask about their experience with your type of foundation. Ask if they carry liability insurance and whether they will provide a written warranty for their work. A reputable contractor will also explain the system in plain language, including where the PVC piping will run, where the fan will be located, and how the manometer works. They should also handle radon testing themselves or coordinate with a certified tester for post-installation verification. Companies like Air Sense Environmental in St. Louis have built a reputation on thorough radon testing, radon system installation, and follow-up verification that meets EPA guidelines.

Another point worth considering is whether the contractor is also willing to help with sealing and other preparatory work. Some contractors only install the vent system and expect you to handle the sealing yourself. That can lead to a system that underperforms because the fan has to work harder than necessary. A full-service contractor will include sealing as part of the installation, or at least give you clear instructions on what needs to be done.

What to Expect During Installation

The installation of a radon mitigation system typically takes one to two days for a standard basement. The contractor will drill a hole through the basement floor, install a PVC pipe that runs up through the house and out through the roof or an exterior wall, and mount the fan in an

attic or on the outside of the house. The fan is usually quiet, but you should ask about the noise level before installation. Some fans are nearly silent, while others produce a low hum that can be noticeable in a quiet basement.



After the system is in place, the contractor will seal any visible cracks and gaps. They will also install the manometer, which is a U-shaped tube filled with colored fluid that shows the

pressure difference between the soil under the slab and the basement air. A reading within the normal range means the system is working. If the fluid level drops, it could indicate a blockage, a fan failure, or a leak in the piping. Checking the manometer once a month is a simple habit that can catch problems early.

Once the system is running, the next step is post-installation verification. This involves placing a radon detector in the same location where the initial test was done and running it for at least 48 hours, often longer. The goal is to see that levels have dropped below the EPA action level. A good contractor will not consider the job complete until that verification test comes back clear.

Maintaining Your Mitigation System

A properly installed system requires very little maintenance. The fan should run continuously, and most fans last five to ten years. When the fan eventually fails, you will notice the manometer reading change, and that is your cue to replace it. Some contractors offer maintenance plans that include periodic inspections, but for most homeowners, checking the manometer every month is sufficient.

One thing to watch for is condensation inside the PVC piping. In cold climates, warm moist air from the basement can condense inside the pipe and freeze, which can block the flow. Proper installation includes sloping the pipe so that any condensation drains back into the soil, or insulating the pipe in unconditioned spaces. A good contractor will account for that during installation.

Final Thoughts

Radon mitigation is not a do-it-yourself project. The stakes are too high, and the science is precise enough that a mistake can leave you with a false sense of security. Hiring a qualified radon mitigation contractor who understands local conditions, uses proven methods like sub-slab depressurization, and provides thorough post-installation verification is the best investment you can make in your home's air quality. In St. Louis, where the geology can be unpredictable, that local knowledge matters as much as the equipment.

If you have not tested your home for radon yet, start there. Pick up a test kit or hire a professional to do radon testing. If the results come back high, do not panic. A well-designed mitigation system can bring levels down dramatically, often in a matter of days. And when you choose the right contractor, you get more than a system. You get peace of mind.