

# Why a Radon Retest After Repair Is Essential for Your Home Safety

## The Moment After the Mitigation System Goes In

When you finally have a radon mitigation system installed in your home, it is natural to feel a sense of relief. The contractor has run the piping, sealed the sump pit or suction pit, and mounted the radon fan somewhere out of the way. You sign off on the job, and the radon test that follows usually shows levels well below the EPA action guideline. But that single post-mitigation test is not the end of the story. A radon retest after repair is a step too many homeowners skip, and it can leave them in the dark about whether their radon mitigation system is actually holding up over time.

## What a Post-Mitigation Test Actually Tells You

The first radon test after a system is installed is almost always a short-term radon test. It is typically placed in the lowest lived-in level of the house and left for two to seven days. The contractor or a testing company reads the result, and if it is below 4.0 pCi/L, the system is considered effective. That test captures a snapshot of conditions during those specific days. It does not account for seasonal changes, shifts in the water table, or the settling of the house itself. Soil gas moves differently in dry summer months than it does during a wet spring thaw. A short-term radon test can miss those variations entirely.

## The Difference Between Short-Term and Long-Term Testing

A short-term radon test is useful for a quick check, but it is not the same as a long-term radon test. Long-term tests run for at least ninety days and give you an average reading over a full season. Many homeowners in St. Louis rely on short-term tests because they want fast answers. But if you really want to know whether your radon mitigation system is working as intended, you need to compare both types of data. A [radon retest after repair](#) that uses a long-term test can reveal gradual trends that a short-term test would miss.

For example, I once worked with a family in a split-level home in south St. Louis County. Their initial short-term test came back at 2.1 pCi/L after the system was installed. Everyone was happy. Six months later, a routine manometer check showed the pressure reading was still negative, but the radon levels had crept up to 4.8 pCi/L. A long-term test caught the problem, and it turned out a small gap had opened in the radon sealing around the sump pit. That gap let soil gas bypass the suction point. A simple bead of caulk fixed it, but nobody would have known without the follow-up test.

## Why St. Louis Homes Need a Radon Retest After Repair

St. Louis sits on a mix of glacial till, limestone, and clay. Those soils can shift as they dry and rehydrate, which puts stress on buried radon piping and the concrete slabs they pass through. A radon mitigation system that works perfectly in October might show problems in March after a freeze-thaw cycle. A radon retest after repair accounts for that settling. It is not just about checking the radon fan or reading the manometer. It is about verifying that the entire system, from the suction pit to the junction box to the roof vent, is still doing its job.

I have seen situations where a homeowner called a radon contractor for a fan replacement, assuming the old fan had failed. The fan was running fine, but the manometer showed very low negative pressure. The problem turned out to be a crack in the sub-slab depressurization piping that had developed over a hard winter. The fan was moving air, but most of it was being pulled from the crawl space instead of from under the slab. A radon retest after repair would have flagged that issue months earlier if the homeowner had tested after the previous repair.

## What Happens During a Radon System Repair

When a radon repair is performed, the contractor might replace the radon fan, reseal the sump pit, or patch a broken suction pit. They might also upgrade the junction box or add a new manometer to monitor system pressure. Each of these actions changes how the system operates. Even a minor adjustment, like tightening a clamp on a pipe, can alter the airflow. Without a radon retest after repair, you cannot be certain that the fix actually brought radon levels back down.

I recall a house in University City where the radon fan was replaced because the original unit had seized after a power surge. The new fan was a different model with a slightly higher flow rate. The contractor installed it, checked the manometer, and left. A few weeks later, the homeowner noticed a faint smell from the basement. A retest showed radon levels at 3.9 pCi/L, which was technically below the action level but far higher than the 1.2 pCi/L the old system had maintained. The higher flow rate had actually pulled too much air, disturbing the sub-slab depressurization and drawing soil gas from a new area. The contractor had to throttle the fan back to match the original conditions. That is the kind of detail you only catch when you test after a repair.

## Common Repair Scenarios That Demand a Retest

- Radon fan replacement: A new fan may have different performance curves that change system pressure.
- Sealing work around a sump pit or suction pit: Cracks can open up again if the caulk or radon sealing material degrades.

- Pipe damage from settling or excavation: A cracked pipe can allow soil gas to bypass the system.
- Manometer replacement or recalibration: The reading may look correct, but the system might not be performing as before.
- Changes to the slab or foundation: New cracks or gaps can introduce new entry points for radon.

In each case, a radon retest after repair is the only way to confirm that the mitigation system is still providing adequate radon reduction.

## **How to Approach a Retest the Right Way**

First, give the system time to stabilize after the repair. Wait at least 24 hours, preferably 48, before starting the test. Second, use a long-term radon test if possible. If you need results quickly, a short-term radon test is better than nothing, but plan to follow up with a long-term test later. Third, place the test in the same location as the original post-mitigation test. Consistent placement gives you comparable data. Fourth, keep windows and doors closed as much as possible during the test period, especially for short-term tests.

If you hire a radon contractor like Air Sense Environmental to do the repair, ask them whether they include a retest in their service. Some contractors offer a discounted retest if you schedule it within a certain window. Others will check the system for free but charge for the test itself. It never hurts to ask.

## **When the Retest Shows a Problem**

If the radon retest after repair shows levels above 4.0 pCi/L, do not panic. Check the manometer first. If it is reading in the normal range, the system is likely running but something is allowing soil gas to enter. Look for new cracks in the slab, gaps around the sump pit, or a broken pipe. If the manometer reading is lower than normal, the radon fan might be failing or the sub-slab depressurization system could be clogged. Call a qualified radon contractor to inspect the system. They can run a smoke test or use a pressure gauge to find the weak point.

I have seen homes where the retest came back at 5.2 pCi/L, and the homeowner was ready to rip out the whole system. It turned out that a garden hose had been left running near the sump pit, saturating the soil and temporarily blocking the suction. Once the soil dried out, the system returned to normal. That is a good reminder that retests capture conditions at a specific moment, and some variation is normal. But if the high reading persists, it warrants action.

## **The Bottom Line on Retesting**

A radon mitigation system is not a set-it-and-forget-it device. It is a mechanical system that interacts with the ground beneath your home. Over time, components wear out, seals break, and the soil itself moves. A radon retest after repair gives you the data you need to make informed decisions about your home safety. Whether you use a short-term radon test or a long-term radon test, the important thing is to test. Skip that step, and you are basically guessing whether your investment in radon reduction is still paying off.

For homeowners in St. Louis, where the geology is complex and the seasons are extreme, a yearly retest is a smart habit. Pair that retest with a quick visual check of the manometer and the radon fan, and you have a complete picture of your system health. And if you ever have a repair done, make sure a radon retest after repair is part of the plan. It is the only way to know for certain that the fix worked.