

What You Need to Know About Radon Testing Commercial Property in St. Louis

If you own or manage a commercial building in St. Louis, radon might not be the first thing on your maintenance list. But after years of testing everything from downtown office towers to suburban multifamily property, I can tell you this: ignoring radon is like ignoring a slow leak in the foundation. It doesn't scream for attention, but it can quietly create a serious health risk for everyone inside.

Radon is a radioactive gas that comes from the natural decay of uranium in soil. It seeps up through cracks in slabs, gaps around pipes, and even through porous concrete. In a commercial property, where ventilation systems are often designed for energy efficiency rather than soil gas exclusion, radon can build up to dangerous levels without anyone noticing. That's why radon testing commercial property is not optional if you want to protect occupants and avoid liability.

How Radon Moves Into a Commercial Building

The physics are straightforward. The air pressure inside a heated or cooled building is usually lower than the pressure in the soil underneath. That difference, called the stack effect, pulls soil gas toward the building. In a high-rise or a sprawling one-story retail center, the same principle applies. Radon enters through any opening in the foundation and then gets distributed by the HVAC system. A short-term test can tell you if you have a problem, but only a longer test or continuous monitoring can give you the full picture.

I remember testing a warehouse in the Central West End that had been converted into artist studios. The owner thought radon was only a basement problem. But the highest radon levels we found were on the second floor, because the building had a slab on grade and a poorly sealed crawlspace. That experience taught me that assumptions about radon often cost more than the test itself.

Who Should Care About Radon in Commercial Real Estate

Anyone who occupies a commercial space should care. But the urgency varies. Multifamily property owners face the most direct risk because tenants live there. HUD requires radon testing in certain multifamily developments financed or insured by the agency. If you are involved in a HUD transaction or refinancing, you need to document radon levels before closing. That is where lender testing comes into play. Banks and mortgage companies increasingly ask for a radon test as part of their due diligence, especially if the EPA radon zone for the area is Zone 1 or Zone 2, which much of St. Louis is.

Lender testing is not the same as a general screening. The lender wants a reliable, documented measurement that meets specific protocols. If you use a cheap radon test kit from a big-box store and follow the instructions loosely, you risk an inaccurate reading that could delay the loan or trigger unnecessary mitigation. I have seen deals fall apart because someone tried to save two hundred dollars on testing and ended up spending ten times that on a rushed mitigation system.

The Difference Between Short-Term and Long-Term Tests

Radon levels fluctuate day to day, season to season. A short-term test, usually two to seven days, gives you a snapshot. It is useful for initial screening or for a transaction where you need an answer quickly. But it can be thrown off by weather, barometric pressure, or even how often the doors are opened. A long-term test, lasting 90 days to a year, averages out those swings and gives you a much more reliable annual exposure estimate. For commercial property, I usually recommend starting with a short-term test to see if you have a potential issue, then following up with long-term monitoring if the levels are borderline.

The tools matter too. A passive monitor is a small charcoal or alpha track device that you leave in place and then mail to a lab. It is simple and cheap, but you have to follow the placement instructions carefully. A continuous monitor gives you hour-by-hour readings and can detect spikes that a passive device might average out. For [radon testing commercial property](#), where the stakes involve multiple people and potential liability, I prefer continuous monitors for the primary test. They cost more upfront but the extra data is worth it.

When Radon Levels Are High: Mitigation Options

If your test shows radon levels above the EPA action level of 4 picocuries per liter, you need to do something. The most common fix is sub-slab depressurization. A contractor drills a small hole through the concrete floor, digs out a pit beneath the slab, and installs a pipe connected to a fan that runs continuously. That fan creates negative pressure under the slab, so soil gas is pulled into the pipe and vented safely above the roof. This is the same basic principle as soil suction used in residential radon mitigation, but scaled for a larger footprint.

For buildings with crawlspaces or basements, the approach might involve sealing the crawlspace floor and venting from there. In new construction, you can install a passive mitigation system during the foundation pour, which is far cheaper than retrofitting later. Some building codes in the St. Louis area now require radon-resistant construction in new commercial buildings, but many older codes do not. If you are buying an existing building, do not assume the previous owner tested for radon. Most did not.

The Health Risk Is Real

Radon is the second leading cause of lung cancer in the United States, after smoking. The EPA estimates that radon causes about 21,000 lung cancer deaths per year. For people who spend eight or more hours a day in a commercial building, the cumulative exposure adds up. You cannot see or smell radon, so the only way to know if it is present is to test. I have met building managers who were shocked to find high levels in buildings they had occupied for decades without a single test.

One case that stuck with me was a community center in South City. The board members had been using the basement for storage and occasional meetings for years. When they finally tested as part of a renovation grant requirement, the radon levels were more than three times the EPA action level. The mitigation system cost about four thousand dollars, which felt like a lot until they considered the alternative. No one wants to be the person who ignored a known health risk.

Practical Steps for Commercial Property Owners

Here is a straightforward process for getting started with radon testing commercial property. First, identify the zones in your building that are most likely to have high radon levels. That usually means the lowest occupied level and any area with a concrete slab on grade. Second, choose your test method. For a transaction or HUD requirement, use a certified continuous monitor or a passive device from a qualified lab. Third, follow the placement instructions exactly. Keep the device at least twenty inches from the floor, away from drafts, direct sunlight, and exterior walls. Fourth, send the device to the lab or download the data. Fifth, if the results are above 4 pCi/L, call a mitigation contractor who specializes in commercial systems.

- Test the lowest occupied level of the building. If there are multiple low-level zones, test each one separately.
- Use a certified radon test kit or continuous monitor. Cheap home test kits often lack the accuracy needed for commercial or lender testing.
- Keep the building in closed conditions during a short-term test. That means closing windows and minimizing door openings as much as possible.
- If you are testing for a HUD or lender requirement, ask the testing company for a protocol that meets the specific program's standards.

Who Can Help in St. Louis

If you are in the St. Louis area and need radon testing for a commercial or multifamily property, companies like Air Sense Environmental have the equipment and experience to handle it. They perform HUD and lender testing, and they also offer radon mitigation if high levels are found. A good testing company will explain the results in plain language and help you decide whether a

short-term test is enough or if you need long-term monitoring. They will also know the local soil conditions and the building codes that apply in your municipality.

One thing I appreciate about working with firms that focus on commercial radon is that they treat the process as a partnership, not a transaction. They do not just drop off a radon test kit and leave. They map out the floor plan, decide on the right number of monitors, and come back to retrieve them. They also provide written reports that satisfy lenders, HUD inspectors, and insurance carriers. That documentation matters when you are trying to close a deal or prove compliance.

Final Thoughts on Getting It Right

Radon testing commercial property is not a one-time task. Radon levels can change when you renovate, change the HVAC system, or even when the soil settles. I recommend retesting every two years or after any major structural work. For multifamily property, where tenants rotate in and out, it is good practice to test each unit after a vacancy, especially on the ground floor. The cost of testing is small compared to the cost of a health problem or a failed real estate transaction.

If you are reading this and thinking that radon is a residential problem, I understand why. That is how the topic is usually framed. But commercial buildings face the same soil gas intrusion issues, often at a larger scale. The same EPA guidelines that apply to homes also apply to schools, offices, and apartment buildings. The only difference is the size of the space and the number of people at risk. So if you have not tested your commercial property yet, now is the time. The test itself is simple. The consequences of skipping it are not.