



Radon Testing Guidelines for Real Estate Transactions

Because of the unique nature of real estate transactions, involving multiple parties and financial interests, the U.S. Environmental Protection Agency (U.S. EPA) designed special protocols for radon testing in real estate transactions. The Illinois Emergency Management Agency (IEMA)-Division of Nuclear Safety has adapted these protocols to conform with its radon regulations. These options are listed in simplified form in the table below.

Recommendations for Real Estate Transactions

IEMA strongly recommends ALL homebuyers have an indoor radon test performed prior to purchase or taking occupancy, and mitigated if elevated levels are found. It is not in the best interest of the buyer or seller to rely on a radon measurement performed by anyone other than a licensed measurement professional or technician. Elevated radon concentrations can easily be reduced by a qualified, licensed radon mitigator.

Test Options for Real Estate Transactions

Conduct a short-term radon test in each of the lowest structural areas of the home. For example, if the house has one or more of the following foundation types, e.g., basement, crawl space, slab-on-grade, a test in each area is required for licensed professional measurements.

What to Look for in Short-Term Real Estate Testing Options		
Option	Detector Location	What to do Next
Simultaneous Two short-term tests, 48 hours or longer, performed at the same time.	Two detectors, four inches apart, in each of the lowest structural areas suitable for occupancy.	Fix the home if the average of the two tests is 4 picoCuries per liter (pCi/L) or more.
Continuous Monitor Test One test, 48 hours or longer, performed with an active continuous monitor that integrates and records radon levels hourly.	Continuous monitor placed in each of the lowest structural area suitable for occupancy.	Fix the home if the average radon level is 4 pCi/L or more.

Short-term tests may last between two and 90 days. Most last between two and seven days. Tests between seven and 90 days are usually impractical for real estate transactions. Examples of short-term detectors used in real estate testing include: activated charcoal canisters, charcoal liquid scintillation vials, electret chambers and continuous radon monitors.

If your tests don't agree, contact the IEMA-Division of Nuclear Safety

If your simultaneous or sequential tests are not in agreement (or if you're not sure whether or not they agree), contact the IEMA-Division of Nuclear Safety Radon Program or your licensed radon measurement professional.



When do you average radon test results?

The only time radon test results can be averaged is when two test results are placed simultaneously. Test results from different areas, such as above the crawl space and in the basement, are considered two different tests. Results are each independent of the other and are reported independently, such as basement result of 4.2 pCi/L and family room over crawl space result of 6.1 pCi/L. With an elevated radon level in any one of the lowest structural areas, the recommendation is to fix the house.



Interference with successful completion of a radon measurement is illegal in Illinois.

IEMA-Division of Nuclear Safety Recommendations for Real Estate Radon Measurements

- Hire a licensed radon measurement professional.
- Be sure that IEMA-Division of Nuclear Safety Radon Program radon testing protocols are followed.
- Contact the IEMA-Division of Nuclear Safety Radon Program if you are uncertain about anything regarding radon testing. www.radon.illinois.gov

Disclosure of Radon Information

The Illinois Radon Awareness Act and the Illinois Real Property Disclosure Act requires that a seller of a home disclose information if aware of unsafe concentrations of radon in the home. The acts do not require that testing or remediation work be conducted. However, many relocation companies and lending institutions, as well as home buyers, request a radon test when purchasing a house. Sellers and brokers are cautioned to err on the side of full disclosure of material facts prior to entering into a purchase agreement.

When Testing

Be aware that any test lasting less than a week requires closed-house conditions. Closed-house conditions mean keeping all windows closed, keeping doors closed except for normal entry and exit, and not operating fans or other machines which bring air in from outside (except for fans that are part of a radon reduction system, or small exhaust fans that operate for only short periods of time).

- Before Testing: Begin closed-house conditions at least 12 hours before the start of the short-term test.
- During Testing: Maintain closed-house conditions during the entire duration of the short term test, especially for tests less than one week in duration. Operate home heating or cooling systems normally during the test. For tests lasting less than one week, only operate air conditioning units that recirculate interior air.

Note that professional measurement licensees are required to post Radon Measurement in Progress Notifications at every building entry.

Where the test should be conducted

Place the detector or detectors in each lowest area suitable for occupancy, such as:

- a family room, living room, den, playroom, bedroom, workshop, or exercise room;
- in the lowest level suitable for occupancy, even if isn't currently used but could be, without renovating.

For instance, if the house has one or more of the following foundation types, e.g., basement, crawl space, slab-on-grade, a test should be performed in the basement and in at least one room over the crawlspace and slab-on-grade area. If an elevated radon concentration is found and confirmed in one of these areas, fix the house.

DO NOT MEASURE:

- in the kitchen, laundry room and bathroom (because fan systems and humidity may affect some detectors); or
- in crawl spaces, on floor or wall cracks, or right next to a sump pump, as this may cause a false high reading.

The detector should be placed:

- in an area where it will not be disturbed;
- at least three feet from doors and windows to the outside;
- at least one foot from exterior walls;
- 20 inches to 6 feet from the floor;
- at least four inches away from other objects horizontally and directly above the detector;
- away from drafts; and
- four feet from heat, fireplaces, furnaces, and away from direct sunlight and areas of high humidity.

If the test results show radon levels above 4 pCi/L

Contact the IEMA-Division of Nuclear Safety Radon Program. Staff can provide names and addresses of professional radon mitigators who are trained to reduce radon concentrations. We also recommend that you see our web site www.radon.illinois.gov or contact the Radon Program for a copy of our brochure, *IEMA-Division of Nuclear Safety Guide to Radon Mitigation*.

After a radon reduction system is installed

Perform an independent short-term test to ensure that the reduction system is effective. Make sure the system is operating during the entire test.

The IEMA-Division of Nuclear Safety Radon Program can provide:

- Information about radon and radon testing;
- Names of licensed radon measurement professionals;
- Names of licensed radon mitigation professionals trained to reduce radon.

Call the IEMA-Division of Nuclear Safety Radon Program at: 1(800) 325-1245

IEMA-Division of Nuclear Safety
1035 Outer Park Drive • Springfield, IL 62704
(217) 782-1325 • TDD: (217) 782-6023
www.radon.illinois.gov

