# Radon: Frequently Asked Questions Utah Department of Environmental Quality

#### Is Radon a problem in Utah?

We see 1 in 3 homes in Utah with elevated levels of radon. Excessive radon levels have been found in all 50 states.

#### How can radon damage my health?

Every year in the US, 21,000 deaths occur due to lung cancer from exposure to radon gas. Radon is the leading cause of lung cancer in non-smokers and the 2<sup>nd</sup> leading cause of lung cancer.

#### How does radon get into my home?

Radon moves from uranium-bearing granite deposits in the soil to the atmosphere because there is a lower concentration of radon in the atmosphere than in the soil. Your home is sited in its path, and because the house is usually warmer than the surrounding soil, the air pressure is less, and soil gases, including radon, move into the home. The most common routes are: spaces between basement walls, cracks in foundations, wall openings around sump pumps and drains, construction joints, crawl spaces showers, and well water with high radon concentrations.

#### My house is NEW (or OLD), so it shouldn't have a problem, right?

The age of a home is not a factor when it comes to whether excessive levels of radon are present in the dwelling.

#### My neighbor tested and did not find a radon problem, so my home should be OK, right?

Unfortunately, that is a false assumption. Usually, neither the location of the radon source nor its strength (radioactivity) is known. In addition, the air spaces found in different soil types allow movement at different rates and we seldom know what those types are 20 to 30 feet below the surface, where they act as channels or dams. Predicting a radon level in one home on the basis of a tested level in a home 75 to 200 feet away becomes radon guessing. The only way to know what your radon levels are is to test your home for radon.

#### How do I know if my home has a radon problem?

The only way of knowing if your home has elevated radon levels is to test your home for radon. There are many kinds of low cost "do-it-yourself" radon test kits which may be ordered online or purchased from hardware stores. We recommend either ordering a test kit at <u>radon.utah.gov</u> or purchasing a test kit at either the Utah County Health Department, Suite 2600, or Habitat for Humanity.

#### Does the State do radon testing?

No, the **State** does not do radon testing. We provide information and advice only. In some circumstances, the **Utah County Health Department** and the **Davis County Health Department** will do some testing for their residents.

### I am renting a house (apartment) and am concerned about radon. Does my landlord have to test for radon if I ask him/her to?

No, you will have to do it yourself unless you can persuade him/her to test.

I tested my rental home (apartment), and the radon reading was high. Is my landlord required to "fix" this problem? No, there are no legal requirements for him/her to mitigate the radon level.

#### Where can we get a radon test kit and what is the cost?

You may purchase a **short-term radon test kit** on the state's website, <u>radon.utah.gov</u>, for \$10.95 (including lab fee). You will leave it in your home for 2 to 7 days – depending on the brand of test kit.

You may purchase a **long-term test kit** on the State's website for \$27.95. This test can be placed in your home for as short as 90 days and as long as 364 days.

You may also purchase test kits at the Utah County Health Department, Suite 2600, or Habitat for Humanity for \$10.00 (including lab fee and return shipping).

There is a list of local locations where you can pick up test kits:

https://deq.utah.gov/waste-management-and-radiation-control/purchase-radon-test-kits

#### Are the "Do-It-Yourself" test kits as accurate as those used by professionals hired to do the testing for me?

Yes, if you use a kit that meets EPA requirements, follow the instructions on the label exactly, and return it to the (post office) lab promptly.

#### What is the difference between long and short-term tests?

Short-term tests take 48 hours to 7 days to complete and use charcoal canisters. Each test kit is different, so be sure to read the instructions. The house should be closed for 12 hours before starting the test. Long-term tests take 91 days – 364 days to complete and are conducted with the house in normal living mode. Alpha track detectors or electronic detection instruments are used. Long-term test results give a more representative picture of the true radon levels in the home over time as fluctuations due to changes in ambient temperature and barometric pressure are detected and factored into the final valuation.

#### Which area in my home is the best for testing radon levels?

There are two answers to this question.

- Are you testing your home for a real estate transaction?
   The EPA recommends testing the lowest living level in the home, even if it is an unfinished basement.
- 2) Are you testing your home for radon to protect your family and determine if your home needs mitigation? The EPA recommends testing in the lowest living level in your home. For example, if you have an unfinished basement, they recommend testing a bedroom on the floor where family members are spending most of their time.

Do not test in crawlspaces, closets, utility rooms, bathrooms, or laundry rooms.

#### I'm closing on a house and need a radon measurement test result quickly. How do I accomplish this?

A list of Utah certified measurement professionals can be found on our website <u>radon.utah.gov</u>. Look for: "Certified Measurers". A certified measurement professional will use a continuous radon monitor, which will permit them to give you test results at the end of the test period, and the radon levels will be in real time.

#### My family has been ill since we moved into this house, and we think radon is the cause; what can we do?

The only proven health effect caused by breathing radon is the development of lung cancer. The only way to know if you have elevated radon levels is to test your home. Radon does not cause acute symptoms. You may want to check for carbon monoxide and/or mold.

#### I have a high radon reading in my home. How do I get it fixed?

The method of choice is usually sub-slab or, if you have a crawl space, sub-membrane depressurization. Contact a Certified Radon Professional to bid on the job. We recommend getting three bids. The certified mitigator will advise you on the best method for your home.

#### How much does it cost to have a home remediated (fixed)?

The average cost of a mitigation system in Utah is generally around \$1500 unless an aggregate of difficult foundational design problems is encountered. If you have a crawlspace, there may be an additional fee.

#### Can you recommend a contractor/s?

A list of Utah certified professionals may be found on the State's website, radon.utah.gov – click on "Certified Mitigators".

#### Is it possible for me, as the homeowner, to install my own mitigation system?

Perhaps, if you have good handyman skills, including electrical wiring skills. If you are unsure, it would be advisable to get an evaluation from one of the Certified Contractors before you make up your mind. Also, there are great YouTube videos describing how to install a mitigation system.

#### Could I seal and caulk only, and hope it would be enough to correct the problem?

While caulking and sealing are done as part of the mitigation process, the purpose is not to keep radon out but to hold conditioned air in the dwelling. It is impossible to seal all cracks, and the task is not only time-consuming but expensive. It is not recommended as a stand-alone procedure. However, if you have an unfinished basement, and your radon levels are below EPA's action level of 4 pCi/L, sealing entry routes may suffice as a radon reduction option.

#### Should I have my water tested for radon?

If you have tested the air in your home and found a radon problem, and your water comes from a private well, you should test the water. Water test kits are available at radon.utah.gov.

#### Is radon a problem in drinking water supplies?

Generally, radon is not a problem with public drinking water systems because during the water treatment process, aeration releases dissolved radon to the atmosphere. However, if the water supply is from a private well, radon levels could be unacceptably high. The recommendation is to test the well water if the air radon concentrations in the occupied dwelling are over 4 pCi/L of air.

## I am performing an Environmental Site Assessment and need to know the radon level/risk for the property at (identification). Do you have information that can help me?

Most of Utah is classified as EPA Zone 2, which signifies that Utah is an area of high radon potential. Radon data has been collected for over twenty years, showing that 1 in 3 homes in Utah have elevated radon levels. The only way to know if your home has elevated levels is to test your home.

#### Can you test the soil of your home before building your home?

It will not be beneficial to test the soil before building your home because it will not determine if the radon will enter your home. It is recommended that you install a Radon Resistant New Construction system during the build process.