

What About Radon Gas at the Lake??

Radon gas is a cancer-causing radioactive gas. You cannot see, smell or taste radon, but it may be a problem in your home or lake cabin.

You might have read where a North Dakota woman died last Fall, and the cause of death was listed as "exposure to radon gas". Radon is not produced as a commercial product. Radon is a naturally occurring radioactive gas and comes from the natural breakdown (radioactive decay) of uranium. It is usually found in igneous rock and soil, but in some cases, well water may also be a source of radon.

The U.S. Environmental Protection Agency (US EPA) and the Surgeon General's Office have estimated that as many as 20,000 lung cancer deaths are caused each year by radon. Radon is the second leading cause of lung cancer.

Radon gas seeps up through the ground and gets into your homes through sump pits and drain tile, concrete cracks and any exposed areas in crawl spaces.

Like all of you, when I read the information above, I was concerned about the levels at the lake. Readings above 4 pCi/L is considered the "action guideline level". I decided to test my cabin on Pelican Lake several years ago and found levels from 6.1 pCi/L in seldom used lower bedroom areas. Main floor bedrooms were at 3.5 pCi/L. These tests were done with "hardware store, mail in test kits", that sell for about \$25 each.

The ND lady who died from radon gas was sleeping in a lower basement area, near a sump pit where the levels were over 200 pCi/L.

I recently purchased an electronic Radon gas meter that continuously reads and displays daily and 7-day average Radon levels. With this new radon meter, I have been doing monitoring studies around my cabin, looking for "hot spots" and testing the effects of mitigation changes, like sealing the sump pit in the basement floor. The basement level bedrooms were averaging about 6.0 pCi/L and dropped to 4.5 after I sealed my sump pit cover. The upper level bedroom dropped from 3.4 pCi/L to 2.6 pCi/L after the basement sump pit was sealed.

I discussed this Radon gas issue with Russ Severson from Little Pelican. He had tested his cabin with the "charcoal mail in test kits" and found his lower level Radon level to be at 8.2, so he had a "mitigation kit installed" with dropped the level to 1.5 in his basement area. His main floor bedroom level went from 6.1 to 0.8 pCi/L after the mitigation kit was installed. A mitigation kit usually consists of a small fan and piping that removes/vacuums air (radon gas) from the sump pit area, and also seals the sump pit cover from the rest of the basement.

Should you worry about radon gas? Where you sleep and spend your most time is the most critical factors to consider. Confined lower areas, with sump pits, will typically have higher levels of radon gas. Upper levels that have more fresh air exchange will show lower levels of Radon gas. Newer homes with better windows and air tight construction can actually be worse than older homes, where more "fresh air leaks in (and out)", lowering the Radon gas concentration levels.

Some states (and cities) do require a Radon gas test before a home can be sold. If the home fails the test, a mitigation kit must be installed.

While my radon gas numbers are borderline, especially in the basement areas, I am continuing to test and find the source of Radon gas, and I plan to get my numbers even lower. My kids and

grandkids stay in those lower level areas a few weeks a year, and that is enough to make me want to improve the numbers. Google radon gas for more info.

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