

Radon – A Quiet Killer

Joy Peck
Executive Director, IERA

What if you had a 50-50 chance of having a life-threatening accident today? Would knowing in advance the likelihood of it happening to you make you decide to get out of the way? Most people would say, “Heck, yes!” Well, in the Eastern Washington area, there is a 50-50 chance that the house in which you live has a radon level higher than 4.0 picocuries of radon per liter of air, and 4.0 pCi/L is the level at which serious concern for health of the occupants arises. (See accompanying chart for some additional specific information.)

Radon is the leading cause of lung cancer among non-smokers in the United States and the second leading cause of lung cancer among smokers. Reducing radon in homes, schools, and other buildings is very easy, usually low cost, and finding out if your home is at risk is quick and simple.

Radon Is a Serious Problem

Radon is an odorless, tasteless, colorless, invisible, but radioactive gas that forms as the result of the natural decay of radium (which is itself a decay product of uranium). Uranium is found in nearly all soils but is concentrated in certain types of soils and rocks, most of which are very common in the Spokane area. Spokane County has the highest levels of radon in Washington State, and although it is estimated that 1 in 15 homes nationwide has a radon problem, the figure for our area is over half. The Washington Department of Health reported that Spokane County has the highest levels of cancer-causing radon gas in the State. And the Spokane County Health District has reported that approximately 63% of the houses tested had radon levels above 4.0 pCi/L. The Idaho Department of Health and Welfare reports that approximately 60% of the houses tested in Kootnai County had radon levels above 4.0 pCi/L.

Since the recent lung cancer deaths of Dana Reeve and several high profile persons who were never smokers, radon has once again become a topic of discussion as people seek answers to what can cause such cancers. There is no debate that radon is a lung carcinogen in humans and is linked to over 21,000 deaths annually in people who have never smoked cigarettes or who have never even lived with smokers. Smokers are at an even higher risk of developing radon-induced lung cancer and should also be concerned.

Radon gas decays into radioactive particles that get trapped in the lungs when we breathe. As the particles break down further, they release small bursts of energy which damages lung tissue and leads to lung cancer over a period of years. Lung cancer is the only health effect which, so far, has definitely been linked with radon exposure, and it usually occurs after several years of exposure (5-25 years).

Because radon is not visible to the eye and odorless, and because it can take a few years for the damage to the lungs to become apparent, the seriousness of this issue is usually underestimated. It is very important for everyone to become aware of whether they are being exposed to radon.

How to Lower the Radon Level in Your Home

Since radon is a gas and rises from the ground into the air, it gets into homes and buildings through cracks in solid floors and cracks in walls, through construction joints, gaps in suspended floors and around service pipes, through cavities inside walls, and in the water supply. All of these venues that radon enters your home can be fixed to lower the risk by as much as 99%. Spokane has very porous soils and if the home, apartment building, or structure of any type touches the earth, there is a potential problem.

Occupied homes and apartment units have much higher levels of radon because gas rises, just as heat rises. The use of kitchen and bathroom exhaust fans, fireplaces, clothes dryers all cause air to rise and, if there is radon in the ground in your area, it rises right along with the air into your living space.

Radon is a radioactive substance, so there is actually no known safe level, but the risk can be reduced by lowering the radon level in your home. There are several methods of doing that, but the one primarily used is a vent pipe system and fan, which pulls radon from beneath the house and vents it to the outside. This method of radon mitigation does not require major changes to your home. Sealing foundation cracks and other openings also reduces the chances of radon entering your home and is very effective and cost-efficient.

The best times to check for radon are spring (February-May) and fall (October-December). Testing for radon is not especially recommended in hot weather, but if you are concerned and don't want to wait for fall to get here, contact a radon specialist who can give you more complete information.

An interesting side note...while researching information for this article, I began calling various potential sources and listings in the phone book. One of the numbers I called turned out to be a long-time landlord and member of the Inland Empire Rental Association, Dave Gerard, whom I had not yet met. He is co-owner of **Advanced Radon Technologies, Inc, located at 2801 N. Monroe, Spokane, WA 99205, (509) 326-5127**. He has been in business since 1990, and his many years of experience as a landlord and in the field of radon mitigation were extremely helpful. He took the time to let me interview him to get background about the radon problem in the Spokane area. He has a large array of information, literature, and interesting statistics that should be of interest to local residents. As a landlord himself, he knows firsthand many of the concerns and problems landlords encounter.

Remember, that testing for radon can be done yourself with a short-term, inexpensive test or by a radon mitigation expert for low cost. Finding out the radon level in your own home and your rentals is easy to do...easy to test, easy to fix, and provides real peace of mind.

There are many brochures and articles about radon and radon mitigation, many of which we have copies of at the IERA office. If you are interested in obtaining of them, call the office at 535-1018, email me at iera@iera.org or stop by the office during office hours.