RADON GAS: A PERNICIOUS ELEMENT IN THE BASEMENT

Review

Radon is a radioactive gas which concentrates in the lungs of human beings. Radon is the second leading cause of lung cancer in the United States, approximately 21,000 deaths per year. Radon is an odorless, tasteless gas formed from the decay of naturally occurring uranium (elemental radium) found in rock and soil throughout Minnesota and in substantial amounts in much of Woodland's soil. The primary source radon exposure for most people is their home where the gas seeps through the minute structural cracks or gaps in the foundation or through the basement floor. The resident inhales the radon gas (half-life 3.8 days) which decays giving off Alfa particles and polonuim, both causing lung tissue change – cancer. Unlike many types of cancer, lung cancer yet has a low survival rate (7%). The Minnesota Department of Health (MDH) estimates that one in three homes in Minnesota have levels of radon gas that pose a formidable health risk if exposure is greater than 10 years in duration. More than 300 Minnesotans succumb each year to death by radon, according to Matt Flory, Health Care Director for the American Cancer Society (ACS). (In order to establish importance by comparison, the annual fatality rate on Minnesota roads caused by motor vehicles is 450 persons).

Owners of older existing homes should not think they are stuck with inconsequential or permanent levels of radon. Homes with levels over 4 PiC/L should consider installation of specific ventilation systems, referred to as mitigation. A standard mitigation system in an existing home costs an average of $1,500. Potential home sellers be advised: Many banks and mortgage companies require radon testing and appropriate mitigation before a sale can be finalized.

Recommendation

The first step toward reducing radon risk for anyone, whether they live in a newly constructed home or an existing home, is to test for radon as recommended by the Minnesota Department of Health and endorsed by the Woodland City Council. Homes should be tested about once every five years or after undergoing major structural changes. Test kits can be purchased from a variety of laboratories and range in duration from two days to one year. Air Check, Inc., a manufacturer of radon test kits, has offered Minnesota residents a discount on radon test kits; order online at www.mn.radon.com to receive a short-term (3-5 day) radon test kit at a discounted rate (typical cost of $15). Instructions for setting up the test (monitor) are included with the address to send the exposed monitor for analysis. Some hardware stores sell test kits.

For more information on testing, mitigation and new radon-resistant construction, visit www.health.state.mn.us/radon or call the Minnesota Department of Health Indoor Air Unit at 651-201-4601 or 800-798-9050.