Home radon detection simple and important

MANHATTAN – Radon is a naturally occurring element produced from radioactive decay in the soil; it's an odorless, colorless and tasteless gas, and cited as the leading cause of lung cancer in non-smokers, and the second leading cause of lung cancer in the general population.

Radon surveys have shown that 6 percent of homes in the U.S. have average concentrations above the recommended maximum level. However, the Kansas survey demonstrated that one in four homes were high, said Bruce Snead, Kansas State University Research and Extension residential energy specialist.

"Anyone can be vulnerable," said Snead, who explained that the cancer-causing gas, which can seep from the soil beneath the foundation through cracks or joints (in the foundation) into a home, is typically easy to detect and mitigate at a moderate cost.

"Detection is relatively simple," said Snead, who recommends beginning with a home radon detector, which, in its simplest form, can be purchased from many K-State Research and Extension offices in the state (for about $5), at home and hardware stores and on the Internet, usually for $25 or less.

"Testing is important, because it's the only way to tell how much of the gas is present," said Snead, who explained that, in Kansas since 1987, 41 percent (20,592) of the 50,182 test results available had levels above the recommended ceiling of 4.0 pCi/L (Pico Curies per liter of air, is the unit of measurement).

Conduct tests in the home in the lowest lived-in level (such as a bedroom, living room or family room) about 20 to 24 inches above the floor for two to five days. The goal is to measure the potential for elevated concentrations that come from the soil beneath the home's foundation.

Testing in a kitchen or bathroom, in which more humid air and ventilation is typically occurring, is not recommended, said Snead, who noted that following test directions is a must.

If the initial test result is 4 pCi/L or higher, a follow-up test is recommended. Consider fixing your home if the average of the first and second test is 4 pCi/L or higher. If the initial result is low, further testing would be advised if living patterns change, if you begin occupying a lower level, or a significant change occurs in the foundation, heating/cooling systems or insulation/air sealing features. Hiring a professional contractor to fix your home is recommended.

Lists of Kansas radon measurement and mitigation contractors who voluntarily participate in one of two national radon proficiency programs are available at www.kansasradonprogram.org/contractors. Beginning July 1, 2011, all professional radon measurement and mitigation technicians and laboratories providing services in Kansas will need to obtain state certification through the Kansas Department of Health and Environment.

In Kansas, since July 1, 2009, residential real estate contracts must contain a specific paragraph recommending radon testing in real estate transactions and disclosure of test results.

There are, however, currently no laws requiring such tests or mitigation of high levels of radon, if found, he said. Radon-awareness is recommended for everyone, said Snead, who noted that a $5 to $25 test may be all that it takes to spare you or a loved one from lung cancer.

More information about radon is available via the Kansas Radon Program at K-State Research and Extension offices throughout the state, online at http://www.kansasradonprogram.org and by calling: (800) 693-5343.

Radon programs at Kansas State University are supported by the Kansas Department of Health and Environment and the Environmental Protection Agency, and serve as a state and national resource on radon awareness, testing, and mitigation.

Getting ready

VERA SLOAN/Colby Free Press

Oakley Redi Mix and Machine Shop family members Kathy Button and Kerri Traynor began setting up shop for last year's Home and Garden show the day before, while in the booth next to them Craig Myers of Mingo Custom Woods put finishing touches to his hand crafted cabinets, in anticipation of weekend lookers and shoppers.