

Tests check your home's health

Maine rental units now subject to mandatory radon exam

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WATERVILLE — Is your home making you sick?

Radon, furnace gases and other indoor pollutants can compromise air quality in any home. Inspectors say there is just one way to know what is going on in a house, and that is to have it tested.

The state has passed a new law that requires all residential rental properties to be tested for radon by the year 2012. LD 943, An Act To Reduce Lung Cancer Rates in Maine, went into effect last September, and all rented or leased apartments and homes now must be tested for radon, which is a cancer-causing, radioactive gas.

Invisible and odorless, radon is believed to be a leading cause of lung cancer. If tests by a state registered radon testing contractor reveal levels to be excessively high, the state law requires that the problem be remedied by a state registered mitigation contractor.

Ron Rodrigue of Elm-City Home Inspections of Oakland is registered and certified to test radon in the state, and said with more than 268,000 apartment units in Maine, the new law is sure to have a large impact on the real estate industry. He added the state Web site www.radon@maine.gov notes there are only about 60 registered radon testers in Maine.

"The new law is just a start. It does not go far enough," said Rodrigue. "It does not address radon gas in single-family homes in this state. Radon is a problem, not just for the people in apartments or rented residential buildings."

Homeowners concerned about radon levels in their own houses can arrange to have a test performed by a licensed tester, or send away for a simple and inexpensive home kit and do it themselves. The carbon test kits are placed in the basement of the home for a pre-determined period of time then shipped for evaluation at a lab, which then provides the results.

Radon, present in granite and naturally emitted from decaying uranium in the ground, rises up through the earth and can become trapped inside homes, entering through the dirt floor or holes and cracks in the foundation and collecting in the basement and living space.

Remediation involves placing a vapor barrier, such as plastic, between the cellar and the earth then putting a vent pipe out through the roof of the home, so the



Bo Jespersen photo

A home energy audit, like this one performed in Chelsea, can reveal problems with air quality as well as energy efficiency.

radon is captured and released back into the environment.

According to the Maine Citizen's Guide to Radon, one in three Maine homes have excessive levels of radon, and the only way to know is to test for it. Radon is estimated to cause 14,000 deaths per year in the United States, and 165 deaths per year in Maine.

Homes that are heavily insulated and built "tight," with little energy loss for efficiency and conservation purposes, can have problems with radon and other gasses if there is inadequate air exchange.

"Build it tight, ventilate right," is the motto of Maine Homeowner Solutions owner Bo Jespersen, who says a home needs to be viewed as a complete system,

not just a collection of various parts. Windows, siding, insulation, roofing, heating and cooling systems, fans, chimneys, the basement and other parts of the home all need to work together to make a home safe and efficient.

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Air Quality

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By doing a home energy audit, an expert can determine how much heat loss there is and test for air quality. Federal tax credits and state rebates recently became available that make this a particularly good time for homeowners and apartment owners to do this type of work, Jespersen said.

"Tax credits coupled with Efficiency Maine incentives have made it a good time to do it, but people need to strike while the iron's hot," Jespersen said, noting the state has allotted two years for the rebates, but he suspects the money could run out in 18 months.

The Manchester businessman has teamed up with David Couture of Home Performance Plus in Waterville, Kennebec Home Performance's Charlie Holly, and Gerry Smith of Home Energy Evaluations in Fairfield.

The four have built an alliance to streamline the process for homeowners interested in having a home evaluation and then prioritizing any improvements recommended for the home, Jespersen said. They will help homeowners maximize the rebate and tax credit they can get for the work, while also calculating the energy savings the homeowners will reap for years to come.

Home energy audits look at the health and safety of the environment for its occupants, combustion safety and proper exhausting, durability of the structure and energy efficiency measures such as balancing ventilation.

"The house is a system, and we look at how all the parts work together," he said. Jespersen noted the audit report becomes a long-term document that the homeowner can return to whenever there is work to be done. It may take years to complete everything recommended, but the contractors can help guide a homeowner through the process, resolving the most important issues first.

The contractor said homeowners should not fear "building tight," however, proper ventilation and balanced air exchange is key.



Bo Jespersen photo

The crew from Maine Homeowner Solutions in Manchester insulates a home in Litchfield.

"Maine has one of the highest rates of asthma in the country, so we already have an indoor air quality problem, and we could just make that problem worse," he said.

Jespersen noted apartment owners affected by the new radon rules can make upgrades to their rental units that will get them into compliance with the law, save in energy costs and also help them qualify for as much as \$12,000 in incentives.

A home energy audit takes between two and three hours to complete on site, followed by another two to three hours to write the report. Photos and data collected from the audit are reviewed with the homeowner, and recommendations made.

Couture does energy audits and said he finds homes that have been tightened up can have problems with gases from the furnace, propane, radon, new carpets, carbon monoxide and other household threats.

"The biggest problem I see in

doing all of this is I give them my report but then I wonder, 'Are they doing anything? Are they improving their home?'" Couture said. "It can be really dangerous."

He is enthusiastic about the collaboration with Jespersen and the other two companies, and explained he is hopeful it will make it easier for homeowners to make necessary improvements.

Ordinary household systems as basic as a cooktop without a vent, propane appliances, bathroom fans, the chimney and dryer can conspire and lead to problems. Carbon monoxide, another toxic odorless gas, can be sucked into the home and pose problems.

"It's a silent killer and you really, really need to think about it," Couture said of carbon monoxide. He said home CO alarms are helpful, and even better if they are hard-wired into the home because then dead batteries do not become an issue.

"If it alarms, don't assume it's a false alarm," he warned. "Open a window and get out of the house."

Many of the homes he visits have old chimneys, often unlined, and oversized heating systems. Meanwhile, homeowners are tightening up their homes to prevent heat from escaping, but that lack of ventilation can lead to trouble.

"It is a balancing act," Couture said. "The homeowner looks at it as doing the right thing, but there are a lot of potentially dangerous situations."

Despite the alliance with the contractors, Couture said he wanted to reassure customers that each business remains independent. And while the collaboration will benefit the public as a "one-stop shopping" option, he promised it is not a way to drum up business for the individual companies.

"I always give my honest opinion about how things should be done," he said, adding

that will not change.

On the flip side, Couture pointed out the four independent businessmen can provide service that is "very complete, very competitively priced and has quality assurance."

"We can handle everything," he said.

Couture said he has found problems in homes new and old, and thinks homeowners owe it to themselves to get the information about the health and safety, plus energy efficiency, of their living space.

"I've seen just as many problems with a 2-year-old home as a 150-year-old home," he said. "And it's not just energy, it's health and safety. A house can make a person sick."

For more information about home energy audits and balanced ventilation, phone Jespersen at 512-2408 or visit the Web site at www.mainehs.com. For more about radon rules for landlords and testing, visit www.radon@maine.gov or phone Rodrigue at 465-8268.