TO: State Directors
Rural Development

ATTN: Single-Family Housing (SFH) Program Directors, Multi-Family Housing

(MFH) Program Directors, Community Facilities (CF) Program Directors,

Loan Specialists, Public Information Coordinators (PICs)

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Administrator

Rural Housing Service

SUBJECT: Guidance on Radon Resistant Construction and Radon Mitigation

#### Introduction

This Unnumbered Letter regarding radon gas mitigation applies to all housing and community facilities, low-rise buildings and dwellings for the above-mentioned programs. Its intention is to guide staff to best serve our borrowers and protect their health while investing in buildings and homes with Agency funding.

Radon is a radioactive gas that has been found in homes and low rise buildings all over the United States. It comes from the natural breakdown of uranium in soil, rock and water and enters the air you breathe.

From the EPA's website on Radon at www.epa.gov/radon/healthrisks.html:

Radon is the number one cause of lung cancer among non-smokers, according to EPA estimates. Overall, radon is the second leading cause of lung cancer. Radon is responsible for about 21,000 lung cancer deaths every year. About 2,900 of these deaths occur among people who have never smoked. On January 13, 2005, Dr. Richard H. Carmona, the U.S. Surgeon General, issued a national health advisory on radon. Read a study by Dr. William Field on radon-related lung cancer in women at: www.cheec.uiowa.edu/misc/radon.html

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FILING INSTRUCTIONS: Housing Programs

#### Radon-Resistant New Construction of Low-Rise Housing and Community Facilities

New homes can be built to resist radon entry. The additional cost at the time of construction is minimal. When installed properly, the basic radon-resistant new construction techniques greatly reduce the lung cancer risk that may occur from radon in the home. From the EPA website (December 2011):

Using common materials and straightforward techniques, builders can construct new homes that are resistant to radon entry....Radon-resistant new construction (RRNC) typically costs a builder between \$250 and \$750, depending on the size and location of the house. RRNC can cost less than \$250 if the builder already uses some of the same techniques for moisture control.

For more detail on radon-resistant new construction techniques, licensed builders and state contacts, see the EPA website on radon-resistant new construction: http://www.epa.gov/radon/rrnc/builders\_basics.html

# **Testing for Radon**

Testing for radon is simple and inexpensive. The only way to know if a home has high radon levels is to conduct a test. The radon level in a nearby home or housing unit is not a reliable predictor levels. There are two methods of testing for radon; short-term and long-term. For more information and a list of state radon contacts, visit <a href="http://www.epa.gov/radon/pubs/citguide.html">http://www.epa.gov/radon/pubs/citguide.html</a>

EPA has developed a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map can be found here: <a href="http://www.epa.gov/radon/zonemap.html">http://www.epa.gov/radon/zonemap.html</a>. The map is not intended to be used to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones. All homes should be tested regardless of geographic location.

## Radon Testing and Mitigation of Existing Low-Rise Housing and Community Facilities

It is recommended that homes, housing and community facilities in Zones 1 and 2 of the Radon Map that do not have properly installed radon mitigation systems, or have not been tested within 5 years should be tested. If it is not known whether a building or home has been tested, and/or the results are inaccessible or unclear, it is recommended to retest. There are a variety of sources to procure testing kits. The EPA website describes such sources and also recommends a hotline through Kansas State University: 1(800)SOSRADON or 1 (800) 767-7236. The website: http://www.epa.gov/radon/radontest.html

EPA recommends fixing homes and buildings above an "action level" of 4 picoCuries (pCi/L) per liter of air. Fixing a home can greatly reduce the liklihood that an inhabitant will suffer from radon-induced lung cancer.

It is important that qualified contractors are employed in the testing for radon (if you hire a professional), to ensure construction of radon-resistant buildings and mitigation of radon in existing buildings and homes. It's also important to understand state requirements for radon testing and mitigation. See <a href="http://www.epa.gov/radon/whereyoulive.html">http://www.epa.gov/radon/whereyoulive.html</a> to find the radon contacts for each state.

# **Multifamily Housing Energy-Efficiency Scoring in NOFAs**

Radon-Resistant new construction is already an integral part of several green and healthy housing programs, such as:

- EPA's Indoor airPLUS (IAP) (http://www.epa.gov/indoorairplus/construction\_specifications.html#radon\_control)
- U.S. Green Building Council LEED for Homes Rating System
- National Association of Home Builders (NAHB)

Scoring points in several of the Notices of Funding Availability for multifamily housing will reflect the priority of radon mitigation.

### Sources of Funding for Radon Mitigation for Single Family Housing

While funding for the Section 504 program is limited, its aim is to assist elderly and very-low income homeowners with health, safety and welfare renovations. Radon mitigation would qualify under this program. See the program requirements for these sources of funding and be aware that this program has very limited funding and is often oversubscribed, particularly in the grant program. Consider the use of loan funds to complement grant funds for eligible borrowers.

The Section 504 program is only for a specific population of borrowers for single family housing and the majority of our borrowers in the direct and guaranteed Section 502 loan programs would not be eligible for this funding. However, the Agency can still share important information regarding radon with these borrowers. Some states have adopted building codes that require radon mitigation, and Agency staff should make borrowers aware of this when applicable. In most cases, however, there will not be a building code that mandates testing and mitigation. The Agency strongly recommends that staff distribute the EPA pamphlets on radiation or send them electronically to borrowers when possible. The Agency also recommends that loan specialists bring up the topic of radon in discussions with borrowers so that they may make their own decisions about their health and the health of their families.

The Section 502 direct loans program does administer loans for rehabilitation and radon mitigation would be an eligible repair to apply for such funds. Rehabilitation is not an approved loan purpose for the Section 502 guaranteed loan program. It is expected that borrowers that meet the income requirements for the Guaranteed loan program, 115% of median income, would have more resources to afford to make the necessary repairs to mitigate radon on their own.

The USDA Cooperative Extension System is a source for radon education outreach to help individuals and families make informed decisions about radon testing and mitigation. Referrals

can be made to local Extension Educators or State Extension Specialists in Land-Grant Universities to assist families. Locate the local Cooperative Extension Office and/or State Extension Specialists at <a href="http://nifa.usda.gov/qlinks/partners/state\_partners.html">http://nifa.usda.gov/qlinks/partners/state\_partners.html</a>. These educators are trained professionals funded through local, state, and federal revenue.

#### **Conclusion**

Any home or building may have a radon problem. This unnumbered letter is meant to raise awareness and distribute information to demonstrate the importance of radon risk reduction. States are requested to become knowledgeable about the requirements and resources within their state, focus attention on the issue, and promote radon mitigation strategies in the delivery of programs where possible. When required by state law, states must ensure new homes and buildings are constructed with radon mitigation techniques and existing homes and buildings are professionally tested. Contact your state radon office for additional information.