

Home Inspectors – Pest Control Inspectors Environmental Consultants – Indoor Air Quality Officials

See how a radon certification can add an important radon service to your business!!

Radon Measurement Training Radon Measurement Exam April 11-13, 2007 – Bowling Green, Kentucky

Sponsored by the Kentucky Radon Program

What Is Radon? Why Be Concerned?

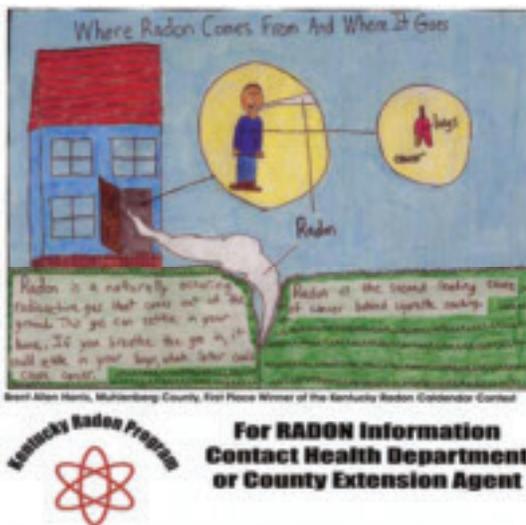
RADON is a colorless, odorless and tasteless cancer-causing radioactive gas that comes from the natural decay of uranium found in different types of soils, rock and some groundwater. Because it is a gas, it can migrate toward the surface and enter homes, schools and workplaces through openings in the foundation. The National Academy of Science, the Surgeon General's Office and the US Environmental Protection Agency (USEPA) indicate that radon is second only to smoking as a cause of lung cancer and that radon causes approximately 21,000 lung cancer deaths per year in the U.S.

As shown on the USEPA website, Peter Jennings' death and Dana Reeve's announcement raised public awareness about lung cancer, especially among people who have never smoked. Smoking, radon, and secondhand smoke are the leading causes of lung cancer. Although lung cancer can be treated, the survival rate is one of the lowest of all types of cancer. See more information at USEPA website: <http://www.epa.gov/iaq/radon/>. USEPA recommends fixing homes with radon levels of 4.0 pCi/L or greater. Because there is no known safe level of exposure to radon, EPA also recommends that Americans consider fixing or mitigating their homes for radon levels between 2 pCi/L and 4 pCi/L.

Quality Assurance & Quality Control Workshop

Certified Radon Professionals can receive eight hours of continuing education credits

April 13, 2007 – Bowling Green, Kentucky



There is a concerted public awareness campaign underway to alert Kentucky residents to the risks posed by this cancer-causing gas. As this campaign takes hold, there will be an increasing demand for radon measurement and mitigation services in Kentucky.

The Kentucky Radon Program, the University of Kentucky and Western Kentucky University will offer and sponsor the radon trainings and exams in Kentucky. **Mr. Clay Hardwick** is the Kentucky radon contact and can be reached at (502) 564-4856 or checkout the Kentucky Radon Program at their website <http://www.chfs.ky.gov/dph/info/phps/radongas/> for more information on radon in Kentucky.

*Discounts will be given for measurement training for KREIA Members
ASHI and NACHI members also receive a discount for the measurement training*

Radon Measurement Training

April 11-13, 2007

Radon Measurement Exam – April 13, 2007

This training helps to prepare students to conduct competent radon measurement tests in residential settings and to interpret results for clients. The training helps students to prepare for the radon measurement exam, following the training. Some of the topics might include:

- Basics of radon entry and behavior
- Physics of radon
- Health effects of radon
- Radon measurements
- Quality assurance and quality control
- Radon measurement device protocols
- Radon and water
- Basic radon mitigation strategies

The trainings and exam will be held at the **Ramada Inn**, 4767 Scottsville Road, I-65 in Bowling Green, KY. Contact the hotel (270) 781-3000 for reserving sleeping rooms. All participants are responsible for travel arrangements. A confirmation package will be sent to all registrants, which could include logistical details and study materials.

Quality Assurance & Quality Control Workshop

This workshop will provide eight hours of Continuing Education Credits for certified radon measurement specialists

April 13, 2007 - Bowling Green, Kentucky

This workshop will provide more detailed information on the required QA/QC work plans. The objective of this workshop is to familiarize you with the purpose and intent of your quality assurance plans and to increase confidence in your radon measurements. By applying the principles of quality assurance and control, you will realize the benefit of improved radon measurements and be more aware of the conditions causing error in your measurements.

Certified individuals are to follow the EPA guidelines as described in Indoor Radon and Radon Decay Product Measurement Device Protocols, EPA 402-R-92-004, July 1992, and Protocols for Radon and Radon Decay Product Measurements in Homes, EPA 402-R-92-003, June 1993.



Western Kentucky University is a partner with the Kentucky Radon Program and will co-sponsor the radon trainings in April. **Ms. Charlotte Reeder** is the WKU radon contact in the Department of Public Health, Science and Technology Hall. For more information about radon in the Bowling Green, Kentucky area, contact Ms. Reeder at (270) 745-2634.



The University of Kentucky is also a partner and co-sponsor for the radon trainings. **Mr. Gerald Hash**, Extension Associate for Residential Energy and Air Quality in Biosystems & Ag Engineering and **Mr. Larry Piercy**, Ag Extension Specialist are the radon contacts for the University of Kentucky. Contact Mr. Hash (859) 257-3000 ext 330 or Mr. Piercy (859) 257-3000 Ext 107 or visit the University of Kentucky website at <http://www.bae.uky.edu/ext/Residential/Radon/> for more details on radon in the Lexington, Kentucky area.

Health Risks – USEPA Indoor Air Quality - Radon

<http://www.epa.gov/iag/radon/healthrisks.html> - Last updated September 7, 2006

Exposure to Radon Causes Lung Cancer In Non-smokers and Smokers Alike

Lung cancer kills thousands of Americans every year. The untimely deaths of Peter Jennings and Dana Reeve have raised public awareness about lung cancer, especially among people who have never smoked. Smoking, radon, and secondhand smoke are the leading causes of lung cancer. Although lung cancer can be treated, the survival rate is one of the lowest for those with cancer. From the time of diagnosis, between 11 and 15 percent of those afflicted will live beyond five years, depending upon demographic factors. In many cases lung cancer can be prevented; this is especially true for radon.

Smoking is the leading cause of lung cancer. Smoking causes an estimated 160,000* deaths in the U.S. every year (American Cancer Society, 2004). And the rate among women is rising. On January 11, 1964, Dr. Luther L. Terry, then U.S. Surgeon General, issued the first warning on the link between smoking and lung cancer. Lung cancer now surpasses breast cancer as the number one cause of death among women. A smoker who is also exposed to radon has a much higher risk of lung cancer.

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. Visit www.cheec.uiowa.edu/misc/radon.html study by Dr. William Field on radon-related lung cancer in women.

Secondhand smoke is the third leading cause of lung cancer and responsible for an estimated 3,000 lung cancer deaths every year. About 1,000 of these are people that never smoked, and about 2,000 are former smokers. Smoking affects non-smokers by exposing them to secondhand smoke. Exposure to secondhand smoke can have serious consequences for children's health, including asthma attacks, affecting the respiratory tract (bronchitis, pneumonia), and may cause ear infections.

World Health Organization Launches Radon Effort

The World Health Organization (WHO) says radon causes up to 15% of lung cancers worldwide. In an effort to reduce the rate of lung cancer around the world, the World Health Organization (WHO) is launching a new international radon project to help countries increase awareness, collect data and encourage action to reduce radon-related risks. The U.S. EPA is one of several countries supporting this initiative and is encouraged by WHO's attention to this important public health issue. "Radon poses an easily reducible health risk to populations all over the world, but has not up to now received widespread attention," said Dr. Michael Repacholi, coordinator of WHO's Radiation and Environmental Health Unit. He went on to say that "radon in our homes is the main source of exposure to ionizing radiation, and accounts for 50% of the public's exposure to naturally-occurring sources of radiation in many countries."

Why is radon the public health risk that it is?

EPA estimates that about 20,000 lung cancer deaths each year in the U.S. are radon-related. Exposure to radon is the second leading cause of lung cancer after smoking. Radon is an odorless, tasteless and invisible gas produced by the decay of naturally occurring uranium in soil and water. Radon is a form of ionizing radiation and a proven carcinogen. Lung cancer is the only known effect on human health from exposure to radon in air. Thus far, there is no evidence that children are at greater risk of lung cancer than are adults.

Radon in air is ubiquitous. Radon is found in outdoor air and in the indoor air of buildings of all kinds. EPA recommends homes be fixed if the radon level is 4 pCi/L (pico Curies per Liter) or more. Because there is no known safe level of exposure to radon, EPA also recommends that Americans consider fixing their home for radon levels between 2 pCi/L and 4 pCi/L. The average radon concentration in the indoor air of America's homes is about 1.3 pCi/L. It is upon this level that EPA based its estimate of 20,000 radon-related lung cancers a year upon. It is for this simple reason that EPA recommends that Americans consider fixing their homes when the radon level is between 2 pCi/L and 4 pCi/L. The average concentration of radon in outdoor air is .4 pCi/L or 1/10th of EPA's 4 pCi/L action level.

For smokers the risk of lung cancer is significant due to the synergistic effects of radon and smoking. For this population about 62 people in a 1,000 will die of lung-cancer, compared to 7.3 people in a 1,000 for never smokers. Put another way, a person who never smoked (never smoker) who is exposed to 1.3 pCi/L has a 2 in 1,000 chance of lung cancer; while a smoker has a 20 in 1,000 chance of dying from lung cancer. The radon health risk is underscored by the fact that in 1988 Congress added Title III on Indoor Radon

Abatement to the Toxic Substances Control Act. It codified and funded EPA's then fledgling radon program. Also that year, the Office of the U.S. Surgeon General issued a warning about radon urging Americans to test their homes and to reduce the radon level when necessary (U.S. Surgeon General).

Unfortunately, many Americans presume that because the action level is 4 pCi/L, a radon level of less than 4 pCi/L is 'safe'. This perception is altogether too common in the residential real estate market. In managing any risk, we should be concerned with the greatest risk. For most Americans, their greatest exposure to radon is in their homes; especially in rooms that are below grade (e.g., basements), rooms that are in contact with the ground and those rooms immediately above them.

It's never too late to reduce your risk of lung cancer. Don't wait to test and fix a radon problem. If you are a smoker, stop smoking. Consider quitting. Until you can quit, smoke outside and provide your family with a smoke-free home.

Radon Risk If You Smoke

Radon Level	If 1,000 people who smoked were exposed to this level over a lifetime*...	The risk of cancer from radon exposure compares to**...	WHAT TO DO: Stop smoking and...
20 pCi/L	About 260 people could get lung cancer	250 times the risk of drowning	Fix your home
10 pCi/L	About 150 people could get lung cancer	200 times risk of dying in home fire	Fix your home
8 pCi/L	About 120 people could get lung cancer	30 times the risk of dying in a fall	Fix your home
4 pCi/L	About 62 people could get lung cancer	5 times the risk of dying in a car crash	Fix your home
2 pCi/L	About 32 people could get lung cancer	6 times the risk of dying from poison	Consider fixing between 2-4 pCi/L
1.3 pCi/L	About 20 people could get lung cancer	(Average indoor radon level)	(Reducing radon levels below 2 pCi/L is difficult.)
0.4 pCi/L	About 3 people could get lung cancer	(Average outdoor radon level)	

Note: If you are a former smoker, your risk may be lower. **pCi/L** means (pico Curies per Liter)
 * Lifetime risk of lung cancer deaths from EPA Assessment of Risks from Radon in Homes (EPA 402-R-03-003).
 ** Comparison data calculated using the Centers for Disease Control and Prevention's 1999-2001 National Center for Injury Prevention and Control Reports.

Radon Risk If You've Never Smoked

Radon Level	If 1,000 people who never smoked were exposed to this level over a lifetime*...	The risk of cancer from radon exposure compares to**...	WHAT TO DO:
20 pCi/L	About 36 people could get lung cancer	35 times the risk of drowning	Fix your home
10 pCi/L	About 18 people could get lung cancer	20 times the risk of dying in a home fire	Fix your home
8 pCi/L	About 15 people could get lung cancer	4 times the risk of dying in a fall	Fix your home
4 pCi/L	About 7 people could get lung cancer	The risk of dying in a car crash	Fix your home
2 pCi/L	About 4 person could get lung cancer	The risk of dying from poison	Consider fixing between 2 and 4 pCi/L
1.3 pCi/L	About 2 people could get lung cancer	(Average indoor radon level)	(Reducing radon levels below 2 pCi/L is difficult.)
0.4 pCi/L		(Average outdoor radon level)	

ATTENTION

*Home Inspectors – Pest Control Experts
Environmental Consultants – Health Officials
Certified Radon Specialists*

Radon Measurement Training and Exam

April 11-13, 2007

QA/QC 8 Hour CE Workshop

April 13, 2007

Auburn University is an Equal Opportunity Educational Institution Employer – 2007 01-SRRTC

Auburn University
Non-Profit Org.
U.S. POSTAGE
PAID

**Southern Regional Radon Training Center
217 Ramsay Hall
Auburn, AL 36849-5376**