

Kansas Radon Program Newsletter

Serving individuals certified in radon measurement, mitigation and laboratory services in Kansas.



Kansas Radon Program

August 2012

Sharing information of value with all participants, especially in the first year of the program. We plan quarterly issues, and we welcome your suggestions, questions and requests in order to meet your needs and help us all provide quality radon risk-reduction services to the people of Kansas.

WHAT'S IN THIS ISSUE?

- **Submitting Your Radon Data**
- **Continuing Education Opportunities 2012-2013**
- **Radon in Real Estate Protocols FAQs**
- **Online Radon Resources**

SUBMITTING YOUR RADON DATA

Part of the requirements for certification as a radon measurement technician, a radon mitigation technician, and/or a radon laboratory in Kansas is that radon data must be shared with KDHE.

The specific statutes and regulations governing the sharing of radon data can be found on the KDHE website at: www.kdheks.gov/radiation/radon.htm. ***KDHE has provided an Excel spreadsheet for use in submitting the radon data.*** This spreadsheet can also be downloaded from the website. Use of the spreadsheet is critical to ensure data is formatted consistently for addition to the database.

This data is important! KDHE will utilize the data to conduct scientific research studies and evaluate trends in Kansas. *The information submitted is not subject to the Kansas Open Records Act* and no report or publication will include the names or addresses of individuals. It will be used to document and emphasize the radon issues in Kansas and the successes we are having in getting homes fixed. It will also be used to help encourage citizens to test and mitigate their homes.

Submit radon data via email to: radon@kdheks.gov

Radon data should be submitted to KDHE at the end of each quarter. For example: The data collected during the July 1 – September 30 quarter should be submitted to KDHE by October 7. The data collected during the October 1 – December 31 quarter should be submitted to KDHE by January 7. The data collected during the January 1 – March 31 quarter should be submitted to KDHE by April 7. The data collected during the April 1 – June 30 quarter should be submitted to KDHE by July 7.

If you do not have any data to submit for a particular quarter (i.e., if you have not performed any radon tests or installed any radon mitigation systems during that quarter), you still must submit an email to KDHE notifying the Kansas Radon Program that you do not have any data for the quarter. ***We need to hear from each certified individual each quarter.***

If you are a business which employs multiple radon measurement technicians or multiple radon mitigation technicians and you are submitting data for more than one individual,

please make note of that in your submittal.

In order to incorporate data into the database and use it effectively, it must be in the format specified in the provided excel sheet.

Specific items of concern:

- **Please include radon tests performed in Kansas ONLY**
- Test Location (**Address**) should only include the **street number and name** – not the city
- Test Location (**City**) should include the city – please **do not add “KS” or “Kansas”** - all test results should be from Kansas
- When reporting the **estimated age** of the building, please enter **only** a number which is the **age of the building**, not the year in which it was constructed. **Do not add “Years” or “Yrs” or any label.**
- When reporting **radon levels**, please only include the number - **do not include units such as pCi/L**, and please **do not include less than (<) signs.**
- Certified Radon Measurement Technicians have one worksheet in the spreadsheet, Certified Radon Mitigation Technicians have a different worksheet in the spreadsheet, and Certified Laboratories also have a separate worksheet in the spreadsheet. **Please ensure you are using the correct worksheet for your certification to submit your data.**

KDHE is currently performing a quality control check on the data received since July 1, 2011, and attempting to eliminate duplicates and correct other errors. If you have not submitted all data and information as required by the law, you will be contacted and asked to correct the data and resubmit it to KDHE. If you have not yet submitted radon data, you will be contacted and requested to provide the data immediately. ***Any radon contractors who do not submit their data are at risk for termination of their certification.***

Please contact KDHE if you have any questions regarding your radon data submittal requirements.

Kansas Department of Health and Environment
Bureau of Environmental Health
1000 SW Jackson, Suite 330
Topeka, KS 66612-1365
Attn: Radon Program
phone: 785-296-1560
www.kdheks.gov/radiation/radon.htm

It is our plan to use this radon data to encourage more of our citizens to test and fix their homes. The goal is that this radon data will help us all.

Continuing Education Opportunities 2012-2013

As we enter the second year of this program, compliance with continuing education requirements is on the minds of our participants. You have until two years from your initial date of certification to complete your CE, and we want to enable as many options as appropriate for you to do so. In each two year certification period, the requirement for measurement only is 16 hours, for mitigation it is only 24 hours, and if you are certified in both it is 24 hours total. KDHE is the approving authority for CE.

CE courses taken or activities conducted since the date on which you were originally certified by KDHE may be submitted for approval. Documentation must be maintained, so be sure to keep course certificates, agendas, and other items that demonstrate your attendance or participation.

CE opportunities are available for you as part of independently scheduled courses, both classroom and online, similar to Category I NEHA-NRPP and NRSB approved CE. CE requirements can also be met with Category II NEHA-NRPP and NRSB activities including for conference/symposium attendance; presentation of technical papers, published articles, and instruction.

KDHE will be posting additional information and details about continuing education on their radon webpage, including a form to be used for documenting CE.

In addition, KDHE is **approving the following related professional development courses for CE:** At the Kansas Building Science Institute in Manhattan: <http://www.kansasbuildingsscience.com/who.htm>

1. ENERGY STAR for New Homes Version 3 Training – 3 days – 24 hours CE for Kansas
2. Home Energy Rater Training – 5 days – 24 hours CE for Kansas
3. Housing Quality Standards – 2-1/2 days – 20 hours CE for Kansas
4. ASHRAE 62.2 Ventilation – 1 days – 8 hours CE for Kansas

These courses can enhance your knowledge, skills and business capability, improving your understanding of both measurement and mitigation conditions. If you have taken any of these courses since July 1, 2011, they can be applied to your CE requirements.

(continued CE next page)

You have two years from your initial date of certification to complete your CE credits.

Measurement - 16 hrs,

Mitigation - 24 hrs, Both - 24 hrs

CE (cont.)

Upcoming Radon CE Courses and Events:

- **Radon Training Courses by K-State held prior to ASHI Fall Seminar** – Sept 13, 2012 – Crowne Plaza, Lenexa, KS – more information at <http://www.kansasradonprogram.org/courses>. To register online, visit <https://outreach.ksu.edu/etrakWebApp/Registration.aspx?MeetingCode=605097S>
Kansas Certification Requirements – 8-10am – \$10 – 2 Hours CE for Kansas, 2 Hours Cat II CE NEHA-NRPP
Radon Standards Update and Status – 10-12noon – \$10 – 2 Hours CE for Kansas, 2 Hours Cat II CE NEHA-NRPP
Radon Measurement in Multi-family Housing – 1-5pm – \$75 – 4 Hours CE for Kansas, 4 Hours Cat I CE NEHA-NRPP
All courses combined – \$95
- **AARST Symposium** – Oct 14-17 – Las Vegas – CE courses offered Oct 14 and during event: <http://www.aarst.org/bookstore.shtml>
- **Continuing Education Courses by K-State for Kansas Radon Certification**
 - Radon CE Courses - more information posted soon: <http://www.kansasradonprogram.org/courses>
 - December 3 - Lawrence
 - December 5 - Wichita
 - December 7 - HaysTwo four hours CE courses each day and location; instructor: Jack Hughes.
Active Soil Depressurization and Building Moisture – 8-12 noon
Advanced Diagnostics – 1-5pm
 - Online Radon Measurement and Mitigation Courses at K-State – <http://radoncoursesonline.org/>
- **Region 7 Radon Stakeholders Meeting** – March 2013 – Kansas. More information TBA.

Continue to check the KDHE web site and Kansas Radon Program web sites at <http://www.kdheks.gov/radiation/radon.htm> and <http://www.kansasradonprogram.org/courses> for more information and updates on CE offerings and news.

Radon

Kansas Radon Program (KDHE): Responsible for oversight of Kansas Radon Certification Program. Lists certified contractors for measurement, mitigation, and laboratories in Kansas. Also has resources for initial certification in Kansas, continuing education options, and state regulations pertaining to radon certification as well as radon in real estate and the Kansas radon poster contest: www.kdheks.gov/radiation/radon.htm

Kansas Radon Program (KSU): Go to source for upcoming education options (CE & initial) like training workshops and online courses, county level information, and the Kansas Radon Program Newsletter. Also contains downloadable fact sheets including info on Kansas certification laws, Is Radon a Real Problem?, Radon Levels Can Be Reduced, Building a Radon-Resistant New Home, and Radon in Granite Countertops: www.kansasradonprogram.org

University of Iowa Radon Professionals listerv: Join the listserv for the latest on radon research and the profession: list.uiowa.edu/scripts/wa.exe?SUBED1=RADONPROFESSIONALS&A=1

Environmental Protection Agency (EPA): Great resource for EPA funded studies, general information, and specific links to state programs and further research. Also houses EPA publications including the A Citizen's Guide to Radon, the Home Buyers and Sellers Guide, and the Consumer's Guide to Radon Reduction all available as online site and downloadable pdfs for free: www.epa.gov/radon/index.html

National Radon Program Services: Good list of resources for radon and radon education; lots of FAQs. Links to test kits sales, state programs, radon reduction information, the national radon poster contest, and the number for the National Radon Hotlines: sosradon.org

National Environmental Health Association – National Radon Proficiency Program (NEHA/NRPP): Responsible for most used national certification system (measurement, labs, and mitigation), lists approved education providers (initial training and continuing education), one of the sites the national hotline recommends for people trying to find a local

Resources

radon professional (along with state office websites and NRSB), to be listed as a radon professional on the site you must make an application and be a member: www.radongas.org

National Radon Safety Board (NRSB): Maintains a national certification system for radon professionals (measurement, lab, and mitigation), lists approved training courses (initial and continuing education), provides consumer education, lists certified contractors, one of the sites the national hotline recommends for people trying to find a local radon professional (along with state office websites and NEHA/NRPP), provides information about how to obtain and schedule the NRSB certification exam. To be listed as a professional on the site you must make application and be a member: www.nrsb.org

The American Association of Radon Scientists and Technologists (AARST): The only professional association for the radon industry, AARST brings service professionals, scientists, researchers, manufacturers, and government officials together to strengthen the industry. Maintained through membership – benefits include access E & O and Professional Liability insurance, opportunities to develop and update standards and policy, business listing, and business skills resources from marketing to social media. Holds a joint conference with CRCPD each year affording multiple continuing education opportunities in radon: www.aarst.org

Conference of Radiation Control Program Directors (CRCPD): A not for profit founded in 1968 dedicated to radiation protection (including radon). Membership made up of state and local radiation officials. Source of data and research in radiation with a goal of reducing exposure to radiation in individuals wherever possible. Holds a joint conference with AARST each year with multiple continuing education options and sessions concerning radon: www.crcpd.org/radon.aspx

Cancer Survivors Against Radon (CanSAR): Non-profit working to educate the public and policy makers on the hazards radon and to prevent radon-induced lung cancer. Provides pre-drafted letters for radon

Online

awareness, radon-induced lung cancer memorials, survivor stories, and a network for survivors and loved ones of radon-induced lung cancer: www.cansar.org

EPA's Federal Radon Action Plan: Put into place in the summer of 2011, the Federal Radon Action Plan is a list of tasks and targets to reduce radon exposure nationwide. The score card was last updated in January 2012: www.epa.gov/radon/action_plan.html

Geology of Radon: Interesting site describing radon movement and development from a geology prospective: energy.cr.usgs.gov/radon/georadon.html

EPA's Regional Radon Training Centers (RRTC): Located throughout the United States and set up by the Indoor Radon Abatement Act (IRAA) of 1988, RRTCs develop information and provide training to government officials, professional and private firms, and the public on radon health risks and methods of radon measurement and mitigation. Kansas State University is a member of the Midwest Universities Radon Consortium (the RRTC providing service for the Midwest): www.epa.gov/radon/rrtcs.html

National Academy of Sciences (NAS) Report on Indoor Radon: www.epa.gov/radon/beirvi.html

PSI LaserGrade: Testing company that hosts NEHA/NRPP certification exams at various locations across the county: www.lasergrade.com/psi-locate.shtml

Radon device and supply companies:

- **Air Check, Inc.:** www.radon.com
- **RadonZone.com:** www.radonzone.com
- **Pro-Lab:** www.prolabinc.com
- **AccuStar:** www.accustarlabs.com
- **Radon Testing Corporation of America:** www.rtca.com
- **Dr. Home Air:** www.drhomeair.com
- **Radon Supplies:** www.radonsupplies.com
- **RadonAway:** www.radonaway.com
- **FanTech:** residential.fantech.net/residential-products/radon-mitigation
- **Infiltec:** www.infiltec.com
- **Sun Nuclear:** radon.sunnuclear.com

Radon in Real Estate Protocols

FAQ: Both state measurement professionals and state realtors have recently asked questions concerning the appropriate real estate radon testing protocols. A summary of the primary points associated with the Environmental Protection Agency's (EPA) real estate testing protocols; 1) short- versus long-term radon testing, 2) closed house conditions, 3) device protocols, 4) device locations follows.

Short-term versus long-term testing:

The two durations for radon testing are either short-term or long-term. A short-term radon test is any radon test less than 90 days in duration. A long-term radon test is any radon test 90 days or more in duration. Both short- and long-term testing can be used during real estate transactions. Long-term radon testing during real estate transactions requires a purchase contract that allows the buyers to conduct a long-term radon test, most likely utilizing an alpha track monitor, after they purchase and move into the home. Long-term testing does not require closed-house conditions. The purchase contract also requires the seller to place the agreed-upon amount of money for any potential radon mitigation into an escrow account. If the result of the long-term test is less than 4.0 pCi/L, the escrow account reverts to the seller. If the result of the long-term test is 4.0 pCi/L or greater, the escrow account is awarded to the buyers to be used against the mitigation costs.

Closed house conditions:

While long-term testing during real estate transactions does occur, it is infrequent. The majority of radon tests performed during real estate transactions are short-term in nature, typically lasting between 2-7 days. Short-term radon testing must be conducted under closed house conditions. Closed house conditions are defined in short as all exterior doors and windows shut except for normal entry and exit from the home with the heating and cooling system set appropriately for the season. Closed house conditions do not require hermetically sealing the home, nor do they require the home be vacated. Closed

house conditions do not require all internal doors be closed, or that the door to the room with the radon test device be closed throughout the testing period.

The EPA Home Buyers and Sellers Guide to Radon references three radon device testing protocols for short-term testing; 1) the sequential radon test, 2) the simultaneous radon test, and 3) a single test utilizing a professional quality continuous radon monitor (CRM). All three protocols require that closed house conditions be maintained during the testing period. As referenced in the EPA radon measurement protocols, closed house conditions MUST be maintained for a minimum of 12 hours prior to starting any radon test that is less than 96 hours (4 days) in duration; the 12 hours of closed house conditions prior to starting a short-term radon test is optional for tests 96 hours (4 days) in duration or longer. The practical result of this requirement for simultaneous or sequential radon tests utilizing either activated charcoal radon tests or electret ion chamber radon tests is that if the house cannot be proven to have been closed for 12 hours prior to beginning the test, the minimum test duration is 96 hours (4 days). If the radon test is using a CRM and the house cannot be proven to have been closed for a minimum of 12 hours prior to starting the radon test, the minimum testing period is 60 hours (2 ½ days), with the initial 12 hour sample period deleted from the overall average. When test periods exceed the minimum duration requirements, it is best practice to run the test in additional increments of 24 hours so full diurnal cycles are included.

Device protocols:

The sequential and simultaneous radon test device protocols are designed to prevent making a radon mitigation decision based solely on a single radon test result. In the sequential device protocol, a single radon test is placed in an appropriate location on the appropriate floor of the home. The radon test is left for its manufacturer recommended exposure duration plus the required 12 hours of closed house conditions if the exposure is less than 96 hours (4 days). The device is retrieved after the exposure and sent off for analysis.

During the retrieval, a second identical radon test device is placed in the same location under the same closed house conditions. The second device is retrieved after the exposure and sent off for analysis. In the simultaneous device protocol, two identical radon test devices are placed side-by-side in an appropriate location on the appropriate floor of the home. The two radon test devices are left for the manufacturer recommended exposure duration plus the required 12 hours of closed house conditions if the exposure is less than 96 hours (4 days).

The radon test results for both the sequential and the simultaneous radon device protocol are then averaged. If the average of the two radon tests, either sequential or simultaneous, is less than 4.0 pCi/L, no radon mitigation is recommended as part of the real estate transaction. If the average of the two radon tests is 4.0 pCi/L or more, then radon mitigation is recommended.

The third radon device protocol is a single test with a professional continuous radon monitor (CRM). Professional CRM's have the following two characteristics; 1) the CRM samples the radon a minimum of once per hour and 2) reports both the overall sample period average and the hour-by-hour radon samples. The minimum test duration using the CRM device protocol is 48 hours plus the required 12 hours of closed house conditions prior to starting the radon test; if the house cannot conclusively be shown to have been properly closed for 12 hours, the minimum test duration is 60 hours, with the initial 12 hours of samples discounted from the overall average. If this process is used, your test report to the client should state explicitly how the overall radon average was derived.

Device locations:

The EPA's Home Buyers and Sellers Guide states that radon tests conducted during real estate transactions should be conducted on the lowest habitable level of the home. EPA defines the lowest habitable level of the home as the lowest level of the home suitable for continuous occupancy without requiring major construction, such as the addition of a concrete floor or additional headspace. Examples of appropriate floor location are as follows.

A home set over a crawl space would have the radon test device placed in an appropriate room on the first floor of the home. A home set on a slab-on-grade

foundation would have the radon test device placed in an appropriate room on the first floor of the home. A home set over a finished or partially finished basement would have the radon test device placed in an appropriate room in the finished portion of the basement. A home set over an unfinished basement that was designed to be finished would be tested in the basement in an open area of the basement likely to be made into finished space. A home set over an unfinished basement that would require major construction to be made into finished space would have the radon test device placed in an appropriate room on the first floor of the home. A home with multiple foundation types would have the radon test device placed in an appropriate location on the lowest habitable level, which would be used for the mitigation recommendation. It is recommended but not required that the other foundation areas also be tested.

The room types that are desirable for radon testing include bedrooms, office space, living or family rooms. Radon test devices should not be placed in utility rooms, bathrooms, laundry rooms or other spaces not commonly occupied. Radon test devices never go in a home's crawl space. Once the room is selected, the device is required to meet the following ; 1) the device shall be a minimum of 20 inches off the floor, 2) a minimum of 1 foot away from exterior walls, 3) a minimum of 3 feet away from exterior windows or doors, and 4) not placed in a direct draft from any portion of the heating cooling system.



Kansas Radon Certification Act Requirements:

The following is a brief review of radon testing requirements as set by the Kansas Radon Certification Act. Homeowners are legally allowed to test their own homes or rental properties without being certified for radon testing by the Kansas Department of Health and Environment (KDHE). Homeowners are not legally required to submit any such radon test data to KDHE. Additionally, any individual may perform a radon test without state certification for another person as long as 1) no remuneration for the test is given to the tester and 2) the property being tested is not involved in a current real estate transaction. Any radon test performed for remuneration in Kansas must be conducted by a KDHE-certified radon measurement contractor. All certified radon measurement contractors must also report all measurement data as per KDHE radon measurement regulations.