

Kansas Radon Program Newsletter

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



Kansas Radon Program

January 2020

Questions? Let's Talk.

Certification Questions

Mark Ungerer/ Jason Meinholdt at KDHE: 785-296-1560

<http://www.kdheks.gov/radiation/radon.htm>

General Radon Questions

Brian Hanson at KSU: 785-532-4996

<http://www.kansasradonprogram.org/>

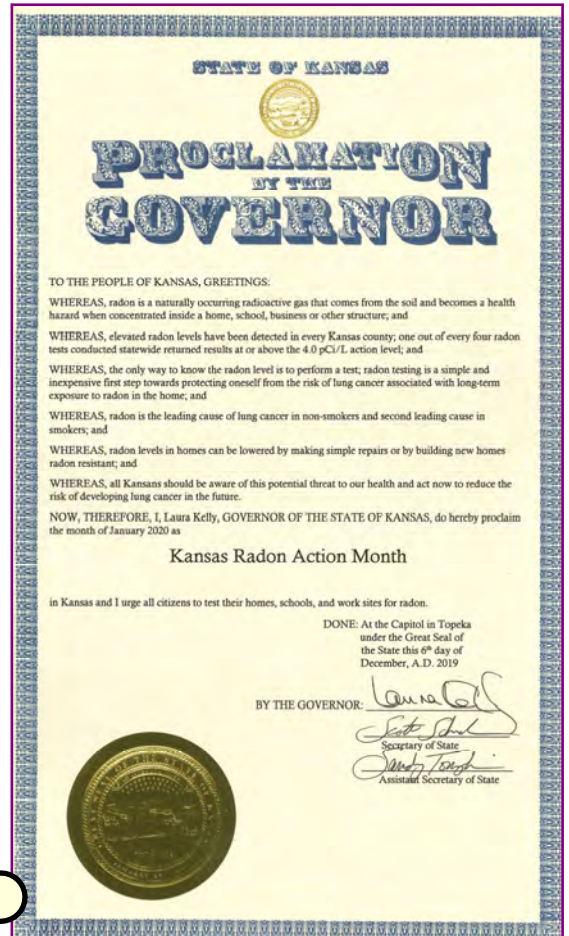
IN THIS ISSUE:

- ✓ January is Kansas Radon Action Month
- ✓ Save the Date: EPA Region 7 Stakeholders Meeting
- ✓ Talk to Your Local Code Officials
- ✓ Upcoming Training
- ✓ Training Schedule January—June 2020
- ✓ Updated State Radon Maps
- ✓ Demystifying the Quality Assurance Plan

January is **NATIONAL RADON ACTION MONTH**



*On December 6, 2019,
Governor Laura Kelly
declared January to be
Kansas Radon Action Month*



On December 6, 2019, Governor Laura Kelly declared January 2020 Kansas Radon Action Month (KRAM).

Pictured above from left to right: Ralph Pimentel, National Building Consultants; Britney Werth, KDHE; Brian Hanson, Kansas State University; Denise G. Dias, M.S., Johnson County K-State Research and Extension; Henri Menager, KDHE/ Epidemiology; Mark Ungerer, KDHE/Radiation Control Program; Stephanie Lehmkuhl, Kansas State University; Kendra Baldrige, KDHE; Billie Toledo, Prairie Band Potawatomie Nation Division of Planning and Environmental Protection; Cindy Evans, Shawnee County K-State Research and Extension

Winter is an excellent time to encourage citizens to test their homes for radon gas. The U.S. Environmental Protection Agency recommends actively reducing indoor radon levels when homes are confirmed with 4.0 pCi/L of radon gas or higher. Kansas State Research and Extension (KSRE) county offices and all county health departments can obtain radon test kits for distribution from the Kansas Radon Program (KRP).

Chronic, long-term radon gas exposure in homes increases the long-term risk of developing lung cancer. Residential radon gas exposure is the number one leading cause of lung cancer death in the U.S. for non-smokers. The KRP is promoting KRAM through state-wide radio and television public education announcements in association with the Kansas Association of Broadcasters (KAB) between January 15 and March 15, 2020. KRP personnel are available to schedule public education programs on request throughout winter 2020. KRP personnel are also available for phone, newspaper or live broadcast interviews. The KRP encourages all KSRE offices and county health departments to include articles in monthly newsletters or newspaper columns promoting KRAM. Visit www.kansasradonprogram.org or call (800) 693-5343.

NEBRASKA

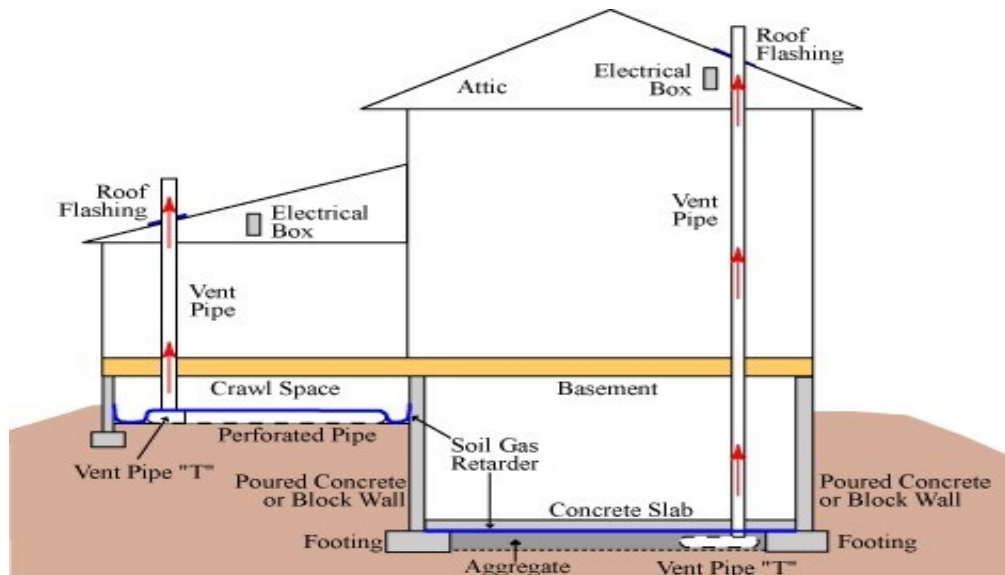
Good Life. Great Mission.

DEPT. OF HEALTH AND HUMAN SERVICES

14TH ANNUAL RADON STAKEHOLDERS' CONFERENCE MARCH 3, 2020



U.S. EPA Region 7



RRNC Example Design

- SAVE THE DATE -

TUESDAY, MARCH 3, 2020

Join us in Nebraska City, Nebraska at the Lied Lodge Hotel and Conference Center. This meeting is being held at no cost for all those that have a stake in protecting the public from unnecessary exposure to radon in their homes, schools and businesses. It is the intent of the U.S. EPA Region 7 and its partners to bring interested stakeholders together to discuss common issues, provide insight into the future, understand radon issues from other perspectives, share, educate and network. **Registration is now open. Go to:**

<https://www.surveymonkey.com/r/Y7GJNSL>

Plan on arriving early for continuing education (CE) on March 2nd. The Heartland Chapter of American Association of Radon Scientists and Technologists (AARST) will be offering CE courses. More information on CE classes will follow. We hope to see you in Nebraska City, Nebraska!

For Hotel Reservations:

Lied Lodge Hotel and Conference Center
2700 Sylvan Road
Nebraska City, NE 68410
Phone: **800-546-5433**

Conference Rate Cost: \$109.00 + Tax

Government Rate With Proof of ID: \$96.00 + Tax

To get conference rate, Reserve by February 1, 2020

Nebraska Department of
Health and Human
Services

Iowa Department of
Public Health

Kansas Department of
Health and Environment

Missouri Department of
Health & Senior Services

Heartland Chapter of
American Association of
Radon Scientists and
Technologists (AARST)

Questions?

Email Ellen Zoeller at
ellen.zoeller@nebraska.gov

or

Steven Brown at U.S. EPA
Region 7 at
brown.steven@epa.gov

Talk to Your Local Code Officials

Recently, a vote was taken by the International Code Council (ICC) to make changes to Appendix F of the International Residential Code (IRC) affecting Radon Resistant New Construction (RRNC). During this voting period, the Kansas Radon Program reached out to numerous code officials in Kansas to encourage voting in these matters. This outreach revealed that **many local code officials are extremely interested in learning how they can help adopt RRNC in their jurisdictions**. We would like to encourage members of our professional community to reach out to code officials you may know in your area and have a conversation with them about RRNC and the adoption of Appendix F. Simple outreach can go a long way in educating decision makers as to the best practices when it comes to radon measurement and mitigation and help to increase adoption of RRNC across Kansas. The Kansas Radon Program is always available to offer guidance to any and all code officials interested in adopting Appendix F in their jurisdiction.

Upcoming Training: (more info on all of these at www.radoncourses.com)

Kansas State continues to offer radon entry-level and continuing education training to the Kansas radon industry.

- ⇒ We offer monthly 2-day webinars on a variety of topics.
- ⇒ We have online and correspondence courses always available.
- ⇒ We have a classroom combined course and exams
February 24-29, 2020 in Manhattan, KS.
- ⇒ The annual day of 8 hours of radon CE associated with the
EPA Region 7 Stakeholders meeting will be held on Monday March 2,
2020 in Nebraska City, NE.

You can find information on these and other training opportunities on our website - <https://radoncourses.com/>, by emailing radoncourse@ksu.edu, or by calling (833) 723-6222.

January - June
2020

Radon Course Schedule

<p>Jan 13-14 Webinar</p> <p>Entry-Level Measurement</p>	<p>Feb 10-11 Webinar</p> <ul style="list-style-type: none"> - Schools Meas/Mit - Inspecting the Radon Mitigation System - Worker Health & Safety 	<p>Feb 10-15 Denver, CO</p> <p>Entry-Level Measurement & Mitigation</p>	<p>Feb 24-29 Manhattan, KS</p> <p>Entry-Level Measurement & Mitigation</p>
<p>Mar 2 Nebraska City, NE</p> <ul style="list-style-type: none"> - Business Tune Up - Personal Protection Equipment - Radon Resistant New Construction - Schools & Lg. Buildings Meas 	<p>Mar 9-11 Johnston, IA</p> <p>Entry-Level Measurement</p>	<p>Mar 28-29 Webinar</p> <p>Entry-Level Measurement</p>	<p>Mar 30 - Apr 3 Johnston, IA</p> <p>Entry-Level Mitigation</p>
<p>Apr 6-7 Webinar</p> <p>Content TBD</p> <p>Suggestions welcome!</p> <p>Course Options: https://bit.ly/2rub0Cs</p>	<p>Apr 6-11 Omaha, NE</p> <p>Entry-Level Measurement & Mitigation</p>	<p>Apr 20-25 Colorado Springs, CO</p> <p>Entry-Level Measurement & Mitigation</p>	<p>Apr 27 - May 2 Dallas, TX</p> <p>Entry-Level Measurement & Mitigation</p>
<p>May 11-12 Webinar</p> <p>Entry-Level Measurement</p>	<p>June 15-20 Manhattan, KS</p> <p>Entry-Level Measurement & Mitigation</p>	<p>June 29-30 Webinar</p> <p>Content TBD</p> <p>Suggestions welcome!</p> <p>Course Options: https://bit.ly/2rub0Cs</p>	<p>Kansas State University Radon Courses</p> 

To view our full 2020 Course Schedule, please visit:

<https://radoncourses.com/classroom/schedule>

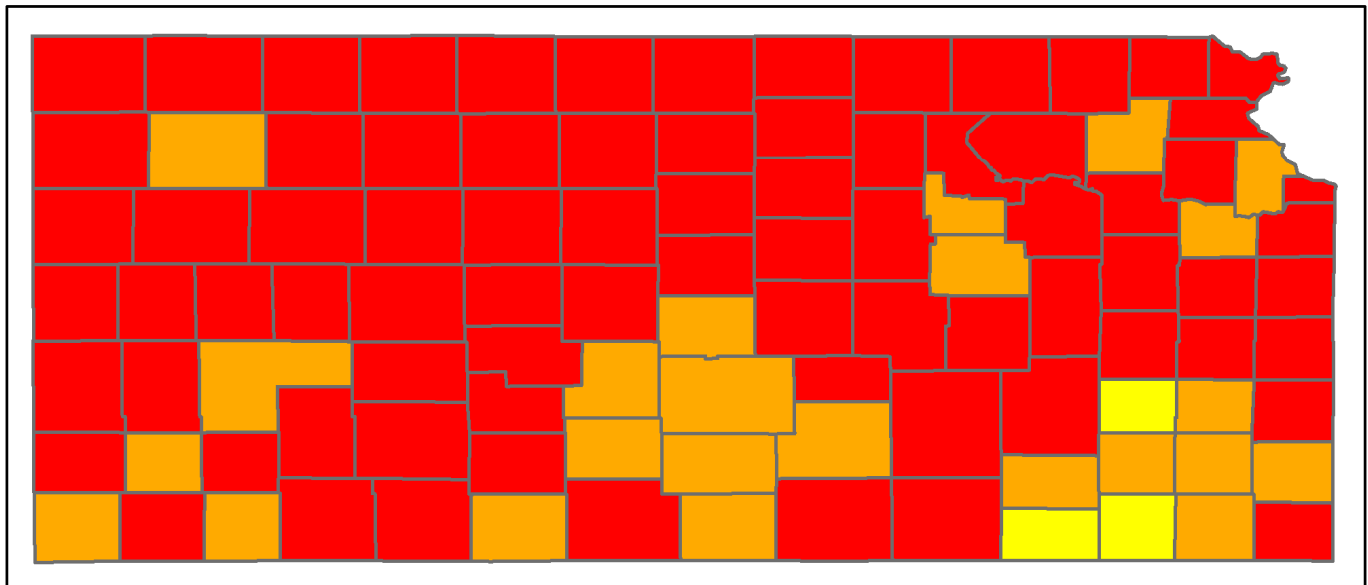
Register Early!*

* Courses will be cancelled at least one week prior to course start date if there are insufficient registration numbers

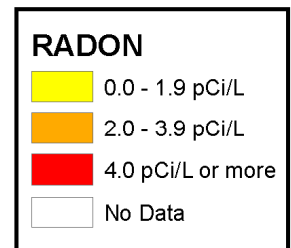
Kansas Radon Program Unveils Updated Radon Maps for Kansas Counties

The county maps available on www.kansasradonprogram.org have been updated with information current through June 2018. These maps are descriptive of observed radon values in those counties, but are not designed to be predictive of individual home radon test results. These maps are available for use by the radon industry in Kansas as part of their promotional and educational efforts as long as the information presented is not altered. For more information, contact Brian Hanson at 785.532.4996 or at bhanson@ksu.edu.

2019 Kansas Radon Average Values by County



Average Radon Level	= 4.6
Maximum Reported Radon Level	= 1,121.6
Total Number of Measurements	= 161,690
Total Measurements 4 pCi/L or greater	= 62,555
Total Measurements 20 pCi/L or greater	= 3296
Total Est. Mitigations (2005-2018)	= 33,066



Copyright 2018, KDHE and Kansas State University. Caution: This map has been produced using data collected by KDHE through June of 2018. As further data becomes available, revision will be necessary. This map is provided free of charge to the public and is generated for study purposes only. Permission is hereby given to reproduce this map provided it is reproduced in its entirety without modification. This map cannot be used to characterize or predict indoor radon levels at any specific area or location. Measurement must be performed to determine radon levels in any given residence or building. Contact the Kansas Radon Program at (800) 693-5343.

Demystifying the Quality Assurance Plan

Quality Assurance Plan...do these words strike up feelings of fear, loathing or confusion to you? You are NOT alone! In a nutshell, your QAP is the way you insure quality to your customers and give validity to your measurements. It is a living, breathing document that will change as your business grows and changes, and as you update your business practices. Here are a few tips that will demystify the QAP, and hopefully clear up three common questions that seem to cause problems for many Measurement Technicians. Record keeping, crosschecks and calibration certificates do not need to be a source of confusion and dread. See how you can simplify your business practices and sync up your QAP to your daily habits.

A large percentage of business for many Measurement Techs is driven by real estate transactions, which makes good record keeping important for the purchase contract. Most business owners keep electronic records on their computers, but backup is critical—we have all had a computer fail. You have choices in how you back up your documents and data. Common options include external hard drive, flash drive, and cloud storage. Make sure you are backing up your data and backing it up as prescribed in your QAP. Set an alarm or calendar event as a reminder.

Duplicates and crosschecks seem to cause headaches for Measurement Techs everywhere. In short, a crosscheck is a duplicate measurement for a Continuous Radon Monitor. There is a wide variety of confusing things written in device manufacturer's standard QAPs provided to their customers. Keep it simple and remember that crosschecks are run on 10% of all measurements made or 50/month, whichever is smaller.

CRMs need to be listed by serial number in your QAP and calibrated annually to insure quality measurements. For those Measurement Techs who utilize CRMs, please include the most current calibration certificates with your renewal paperwork. If a monitor is currently out for calibration, submit the most recent report available and we will be able to see that you are maintaining a proper calibration schedule.

Calibrated monitors, backed up data, and duplicate measurements are the backbone of your business, and add to the professionalism and overall quality of the Radon Industry. Hopefully, these items have made the contents Quality Assurance Plan less scary. Happy measuring!!

Quality Assurance Plan
Checklist for Measurement Technicians/Laboratories

Instructions: Compare this checklist with your Quality Assurance Plan to make sure that you have addressed all these items in your plan, and in your radon measurement practices.

(Standards References: A= EPA Protocols for Radon and Radon Decay Product Measurements in Homes; B= Indoor Radon and Radon Decay Product Measurement Device Protocols; KAR = Kansas Regulations)

Quality Assurance Plan (K.A.R. 28-35-600f)
All Radon Measurement Technicians and laboratories are required to develop, operate by, and maintain a QAP. Participants with analytical capabilities must have a QAP that is appropriate for each device in use.

Critical components of a Kansas radon QAP:

- Quality Assurance Plan developed and in use (A 4.4, 4.4.6), (B 1.3) (KAR)
- Chain of Custody procedures for tracking measurement devices (KAR)
- Procedures and schedule for instrument calibration, calibration certificate showing calibration within 1 yr (KAR)
- Instructions on how to assess the effect of background radiation (KAR)
- Procedures for Duplicate, blank, and/or spiked radon tests (KAR)
- Plan must provide details, practices, and procedures unique to the devices in use. (KAR)
- SOPs developed or manufacturer SOPs adapted and in use for each measurement method for devices analyzed by technician (A 4.5) (KAR)
- SOPs for each brand/model/type of device in use analyzed by outside laboratory (A 4.5) (KAR)

Continuous Radon Monitor/Continuous Wn Monitor Requirements

- Calibration performed annually (B 2.1.11.1)
- Instrument must display calibration information/label.
- Calibration label lists calibration facility, calibration date, date due
- Calibration certificate or log must be maintained for all devices
- Background measurement performed during calibration (B 2.1.11.2)
- Background measurement every 1000 hours (20 or 48 hour measurements) for scintillation cell CRMs (B 2.1.11.2)
- Duplicates performed when two instruments available (B 2.1.11.3)
- Routine instrument checks performed (B 2.1.11.4)

Alpha Track Detector Requirements

- Calibrations performed annually (B 2.2.11.1)
- Spiked samples, 3/100 measurements, minimum 3 per year, maximum 6 per month (B 2.2.11.2)
- Duplicates, 10 percent of monthly measurements, maximum 50 per month (B 2.2.11.3)
- Field blanks, 5 percent of monthly measurements, maximum 25 per month (B 2.2.11.4)
- Daily instrument checks for analysis instruments (B 2.2.11.5)

Electret Detector Requirements

- Calibrations performed annually (B 2.3.11.1)
- Spiked samples, 3/100 measurements, minimum 3 per year, maximum 6 per month (B 2.3.11.2)
- Duplicates, 10 percent of monthly measurements, maximum 50 per month (B 2.3.11.3)
- Blanks, minimum of 5% or 10, whichever is smaller, per month (B 2.3.11.4)
- Weekly voltmeter zero check and reference electret check (B 2.3.11.5)

Activated Charcoal GC Requirements

- Spiked samples, 3/100 measurements, minimum 3 per year, maximum 6 per month (B 2.4.11.2)
- Duplicates, 10 percent of monthly measurements, maximum 50 per month (B 2.4.11.3)
- Blanks, 5 percent of monthly measurements, maximum 25 per month (B 2.4.11.1)

http://www.kdheks.gov/radiation/download/QAP_Checklist.pdf