

Radon: News and Developments

Minnesota Association of Housing Code Officials
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Presentation Overview

- 1. Why should indoor radon be important to housing inspectors?**
- 2. What has recently happened in the Minnesota media concerning radon?**
- 3. Where is Minnesota at concerning licensing of radon testing and mitigation providers?**

Why Should Indoor Radon be Important to Housing Inspectors

- Although not authorized by state statute or local ordinance
 - . . . residential indoor radon exposure is significant and well documented health risk
 - In Minnesota, radon in homes causes about 800 lung cancer deaths per year
 - Far more deaths than accidental carbon monoxide in homes and residential fires

Minnesota Radon Media Attention



KARE 11 Investigates: MN schools fail to test for cancer-causing radon

Despite state and federal recommendations, only 53 of 331 school districts in Minnesota report they have tested classrooms for radon since 2012. KARE 11 found out which Twin Cities area districts are testing – and which ones are not.

Minnesota children, teachers and staff spend about 35 to 40 hours most weeks in school buildings across the state, many of them built on top of soil that contains some of the highest concentrations of radon in the nation.



Most Minnesota school districts, including Minneapolis Public Schools, do not follow EPA and MN Department of Health radon testing recommendations.

But a KARE 11 investigation has found that most Minnesota classrooms are not routinely tested for the colorless and odorless gas, a known carcinogen that's blamed for more than 20,000 lung cancer deaths every year.

KARE-11 School Radon Report Highlights

- Noted that all schools were recommended to test all ground-floor room every five years
 - Radon expert William Angell noted US EPA and the Minnesota Department of Health and US EPA have recommended school radon testing for 25 years
- KARE-11 found **only 53 of 331 (16%) school districts in Minnesota report they have tested classrooms for radon since 2012**
 - Even when schools tested, most failed to follow federal and state recommendations and national standards
 - Angell called this failure “Russian Roulette” relative to the health and safety of students and staff
 - **Less than half of 168 classrooms with high radon had follow-up**



KARE-11 School Radon Report Highlights

- KARE-11 interviewed a 32-year-old lung cancer victim, Rachael Malmberg
 - She never smoked and indoor radon is the most likely cause of her cancer
 - She is a former grade school teacher and hockey player for the Golden Gophers and Team USA
 - **She formerly taught in Duluth which reportedly never tested for radon**



KARE-11 School Radon Report Highlights

- KARE-11 reported that some school districts are “doing it right”
- St. Paul Public Schools tested all ground-floor rooms every five years and publishes the testing results on its website
 - The District budgets about \$180,000 over 5 years to test all of its ground level rooms
 - In 32 classrooms found with elevated radon, the District initiated corrective action and retests to make sure radon is low
 - In many cases, radon is controlled by adjusting air handling equipment
 - The photo at the right is the District’s assistant director of facilities in Nokomis North Montessori which was mitigated by the UMn, MDH and the district in 1993



KARE-11 School Radon Report Highlights

- The KARE-11 report was followed by a number of similar investigative reports in cities and areas such as
 - Fort Collins, CO
 - Washington, DC
 - Southwest FL
 - Tampa, FL
 - Rockford, IL
 - Columbus, IN
 - Louisville, KY
 - Kansas City, MO
 - Long Island, NY
 - Fargo, ND
 - Salt Lake, UT
 - More coming?

What About Home Radon?

- While the KARE-11 focused on lack of radon testing in schools, radon exposure in homes is usually more important since we spend most of our time in our homes
- US EPA, the Minnesota Department of Health, and national standards recommend testing homes, apartments, and condominiums every 5 years
 - Yet, the majority of Minnesota homes have never been tested

Minnesota Radon Licensing

- In the next few slides we will review:
 - The timeline behind the Minnesota Radon Licensing Act
 - Who is covered by the Act
 - What the Act requires
 - What the fees are that are set by this law
- Then we will look at one of the last chapters in enacting rules implement the Act

MN Radon Licensing Act Timeline

- The Act as part of the Omnibus Minnesota Department Authorization Bill was signed into law in May 2015
 - Stimulated criticism:
 - Radon professionals were blindsided
 - Licensing was unneeded
 - Cost were prohibitive including those associated with the need to have licensed individuals both place and retrieve radon test devices
- Opponents were successful in obtaining:
 - Statute changes in 2016 and 2017 delaying enactment until January 1, 2019
 - A July 2018 administrative hearing before an Administrative Law Judge to consider the need and reasonableness of proposed rules

MN Radon Licensing: What's Required?

- Radon measurement and mitigation providers:
 - To be licensed
 - Complete State-approved training
 - Pass State-approved examinations
 - Pay fees
 - Complete minimum State-approved continuing education (8 hours annually for testers and 12 hours for mitigators)
 - Follow national, consensus-based standards of practice
 - To provide quarterly reports to the State
 - To maintain records available to the State and subject to compliance audits and enforcement

MN Rn Licensing: What are the Fees?

- Requires annual licensing and mitigation fees
 - Measurement individuals \$150/annually
 - Mitigation
 - Individuals \$250/annually
 - Companies \$100/annually (waived if one individual)
 - System tags \$75 each
 - Analytical laboratories (analyze passive, time-integrating test devices such as activated charcoal and alpha track)
 - \$500/annually

Rn Licensing: Measurement Providers (1:2)

- Individuals must be licensed if either placing or retrieving radon measurement devices
 - This requirement was strongly debated
 - Opponents contented it was costly and unnecessary
 - The State countered it was absolutely critical to insure the integrity of radon testing (e.g., discourage tampering and testing by unqualified individuals [real estate agents, untrained home inspectors, etc.])
- Requires an approved quality assurance (QA) plan
- Requires use of measurement devices compliant with national, consensus-based standards
 - *ANSI/AARST Performance Specifications for Instrumentation Systems Designed to Measure Radon Gas in Air*

Rn Licensing: Measurement Providers (2:2)

- Requires placement of measurement devices according to national, consensus-based protocols
 - *ANSI/AARST Protocol for Conducting Measurements of Radon and Radon Decay Products in Homes*
 - *ANSI/AARST Standard: Protocol for Conducting Radon and Radon Decay Product Measurements in Multifamily Buildings*
 - *ANSI/AARST Protocol for Conducting Measurements of Radon and Radon Decay Products in Schools and Large Buildings*

Rn Licensing: Analytical Laboratories

- Requires:
 - National radon proficiency program listing
 - A quality assurance (QA) plan meeting ISO requirements
 - An employed or contracted QA manager

Rn Licensing: Mitigation Providers (1:2)

- Companies must be licensed
- Worker supervisors must be licensed
 - Allows non-licensed installers working under a licensed supervisor
- Requires purchase and application of radon system tags

Rn Licensing: Mitigation Providers (2:2)

- Requires compliance with:
 - *ANSI/AARST Soil Gas Mitigation Standards for Existing Homes*
 - *ANSI/AARST Radon Mitigation Standards for Multifamily Buildings*
 - *ANSI/AARST Radon Mitigation Standards for Schools and Large Buildings*

Enacting Rn Licensing: Last Chapter? (1:12)

- Now, we'll summarize one of the last steps in enactment of Minnesota's licensing of radon professionals and businesses
 - In May 2018, the Minnesota Department of Health released its final proposed rules
 - Under the State's Administrative Procedures Act, a July 2018 hearing was held before an Administrative Law Judge
 - 41 individuals submitted comments for the hearing
 - About 30 people attended the hearing
 - 13 members of the public made statements or asked questions
 - Under State statutes, administrative hearings focus on the Agency's Statement of Need and Reasonableness (SONAR)

Enacting Rn Licensing: Last Chapter? (2:12)

The key SONAR consideration was: Did MDH adequately address 8 topics or issues:

1. Describe persons affected by proposed rules
- 2. Estimate the State's administrative costs of the proposed rules**
- 3. Determine if there are less costly or intrusive options**
- 4. Describe alternative methods and why they were rejected**
- 5. Estimate the costs to persons impacted by the proposed rules**
6. Estimate the costs of not implementing
7. Compare the proposed rules with related federal and state rules
8. Assess the cumulative effect of all related rules

Enacting Rn Licensing: Last Chapter? (3:12)

Issue: Alternative methods and why they were rejected

- Standard Water Control Systems, Inc. and an allied association claimed the Department of Health failed to adequately describe an alternative where licensed building contractors without radon licenses could install radon mitigation systems
- The Department responded by noting the radon licensing statute did not specify the State's building contractor licensing as an alternative to proposed radon licensing requirements
- The Judge concluded that the Department's perspective was reasonable

Enacting Rn Licensing: Last Chapter? (4:12)

Issue: Costs to persons impacted by the proposed rules

- An owner of a home inspection company questioned the reasonableness of the Department's estimate of the cost impact of the rules
- The Judge acknowledged there would be a cost impact but concluded the owner failed to demonstrate compliance would cost the amount he claimed
- Further, the Judge found the Department's calculations were careful and amply supported
- Finally, the Judge found the Department's impact cost analysis to be reasonable and well considered

Enacting Rn Licensing: Last Chapter? (5:12)

Issue: Costs to persons impacted by the proposed rules

- Another assertion by Standard Water was a claim the Department's estimated cost impact on radon mitigation contractors was flawed
- The Department rebutted by pointing out that their estimate of cost impact was precisely detailed, drawn from cited sources, and the Department's comprehensive knowledge of the mitigation industry
- The Judge concluded the Department's estimates reflect a reasonable and well-considered cost a business will incur while Standard's assumptions are less credible

Enacting Rn Licensing: Last Chapter? (6:12)

Issue: Costs to persons impacted by the proposed rules

- In response to about a dozen complaints about lapse licensing reinstatement procedures, the Department of Health proposed rule changes
- While the Judge found the proposed changes were needed and reasonable, they contradicted parts of the licensing statute and thus, were disapproved
- The Judge made recommendations to the Department to cure the defects
 - In addition, the Judge made several non-mandatory clarifying recommendations

Enacting Rn Licensing: Last Chapter? (7:12)

Issue: State's administrative costs of the proposed rules

- One radon mitigator asserted it would be more efficient and less costly for the Department to conduct mitigation audits based solely on complaints rather than through regular audits
- The Department countered that the public does not have the knowledge to determine if radon measurement and mitigation professionals have done their jobs properly
- The Judge found it is reasonable for the Department to follow ongoing enforcement and audits of licensees rather than wait for complaints

Enacting Rn Licensing: Last Chapter? (8:12)

Issue: Costs to persons impacted by the proposed rules

- A number of commenters challenged the requirement that only licensed measurement individuals should be allowed to place and retrieve radon-testing devices
- The commenters argued that home inspectors were able to deploy testing device simply by pressing two buttons
- Another individual claimed that American Association of Radon Scientists and Technologists (AARST) standards were unclear on who needed to deploy and pick-up radon measurement equipment

continued

Enacting Rn Licensing: Last Chapter? (9:12)

Issue: Costs to persons imaged by the proposed rules

- The Department of Health countered that AARST and the two proficiency programs (National Radon Proficiency Program [NRPP] and National Radon Safety Board [NRSB]) require certified individuals to place and retrieve test devices
- It also expressed concern that radon testing by untrained home inspectors, real estate agents, or others risk producing unreliable measurements and thus, fail to protect public health
- The Administrative Law Judge found the Department's proposed rule requiring only licensees to place and retrieve radon-testing devices to be needed and reasonable

Enacting Rn Licensing: Last Chapter? (10:12)

Issue: State's administrative costs of the proposed rules

- Several individuals claimed it would be sufficient to simply require radon professionals to be NRPP certified versus licensed
- The Department of Health replied that certification alone would not produce reporting required by the Radon Licensing Act
- The Administrative Law Judge concluded that licensing, rather than simply certification, was required by statute

Enacting Rn Licensing: Last Chapter? (11:12)

Issue: Costs to persons imaged by the proposed rules

- One commenter objected to incorporating ANSI/AARST standards, stating they were cumbersome and unfair
- The Department countered the standards were generally accepted by industry and were the result of a recognized consensus process
- The Administrative Law Judge agreed that the Department had demonstrated that the ANSI/AARST standards were needed and reasonable as well as required by statute

Enacting Rn Licensing: Last Chapter? (12:12)

- **Administrative Law Judge's Recommendation**
 - The proposed amended rules should be adopted
 - Except for modification of two sets of defects
 - Contradictions created by the Department of Health's modification of lapsed measurement and mitigation licenses; and
 - Lack of clarity on the Department's intent to require solo licensed radon mitigation to purchase and post mitigation system tags
 - If the defects were corrected, the rules should become in effect
- When enacted, Minnesota will be the 18th state with radon licensing

