American Lung Association.

State Credentialing Of Radon Service Providers Saves Lives

Radon, a naturally occurring radioactive gas, has long been understood to be an important cause of lung cancer. In the 1980's it became clear that radon and its radioactive decay products could be present at significantly dangerous concentrations in millions of homes in the United States. In the years since then, radon has been recognized as the second leading cause of lung cancer in the United States and its leading cause among never-smokers.

To combat this threat, an array of radon-related industries has developed across the country and around the world. Today, there are thousands of people carrying out work that is essential to reducing exposure to radon in homes and other buildings and hence saving lives by preventing lung cancer. As the industry has grown, so has the need for quality assurance and oversight. To reliably reduce radon risk, two components are necessary:

- Proven effective methods of testing and mitigation are developed and adopted as standards;
- A well-qualified workforce is recruited, trained, and certified to use them.

In jurisdictions without requirements for both standards of practice and worker certification, property owners and residents are at risk from the ill effects of improperly performed radon work. Incorrectly performed testing can fail to detect hazardous radon levels, and faulty mitigation work can cause property damage and may actually increase indoor radon levels.

> States have a key role to play in ensuring the radon industry in their communities is strong, stable, and providing quality services by establishing credentialing requirements that protect public health.

Background

Across the nation, there are many reputable firms and individuals performing radon services, and many of them obtain and maintain professional credentials under privately operated national certification programs (also known as proficiency programs). Two such programs, the National Radon Proficiency Program (NRPP), a program of the American Association of Radon Scientists and Technologists (AARST), and the National Radon Safety Board (NRSB), are acknowledged by the U.S. Environmental Protection Agency (EPA). NRPP is also accredited by the American National Standards Institute's (ANSI) National Accreditation Board under ISO 17024, the International Organization for Standardization's requirements for organizations operating certification systems for persons.

Some states manage their own professional credentialing programs to provide oversight of radon service providers in their jurisdictions. Others have adopted a hybrid program commonly known as "regulation through certification"—where state regulations, rather than establishing a detailed government-run system for oversight, mandate that radon firms meet requirements of recognized private certification bodies (NRPP or NRSB).

As of this writing, EPA is in the final stages of a process of developing and establishing minimum credentialing criteria to help align and ensure consistency across credentialing programs operated by certification bodies and states. Proposed criteria were released for public comment in February 2023. The comment period has closed,

and the agency is currently reviewing and revising the criteria in light of comments received. When the criteria are finalized and released this policy document will be revised as needed.

Glossary of Terms

Credential is an umbrella term for the official designation of qualification or competence issued to a person by an authorized private sector or governmental body. Certification and licensure are both forms of credentialing.

Certification is a process of assurance and recognition, often through testing or inspection, that a person of service meets established standards and requirements.

Licensure is an official permission from a governing body to do, use or own something.

The Current Landscape in States: Professional Credentialing

Twenty states comprising 48% of the nation's population have adopted some form of regulation of the radon industry. Half of those (FL, IA, IL, KS, ME, MN, NE, NJ, OH, PA) require only a credential administered by the state itself, such as a registration, licensure or certification. Most of those rely on examinations administered by NRPP or NRSB as part of their credentialing process. Three states (CA, NH, VA) and the District of Columbia have policies requiring only certification under one of the national proficiency programs. The remaining seven (CO, CT, IN, KY, RI, UT, WV) require both a state-administered credential and certification from one of the privately-operated national programs. The majority of states have established no credentialing requirement for radon contractors to perform their work.

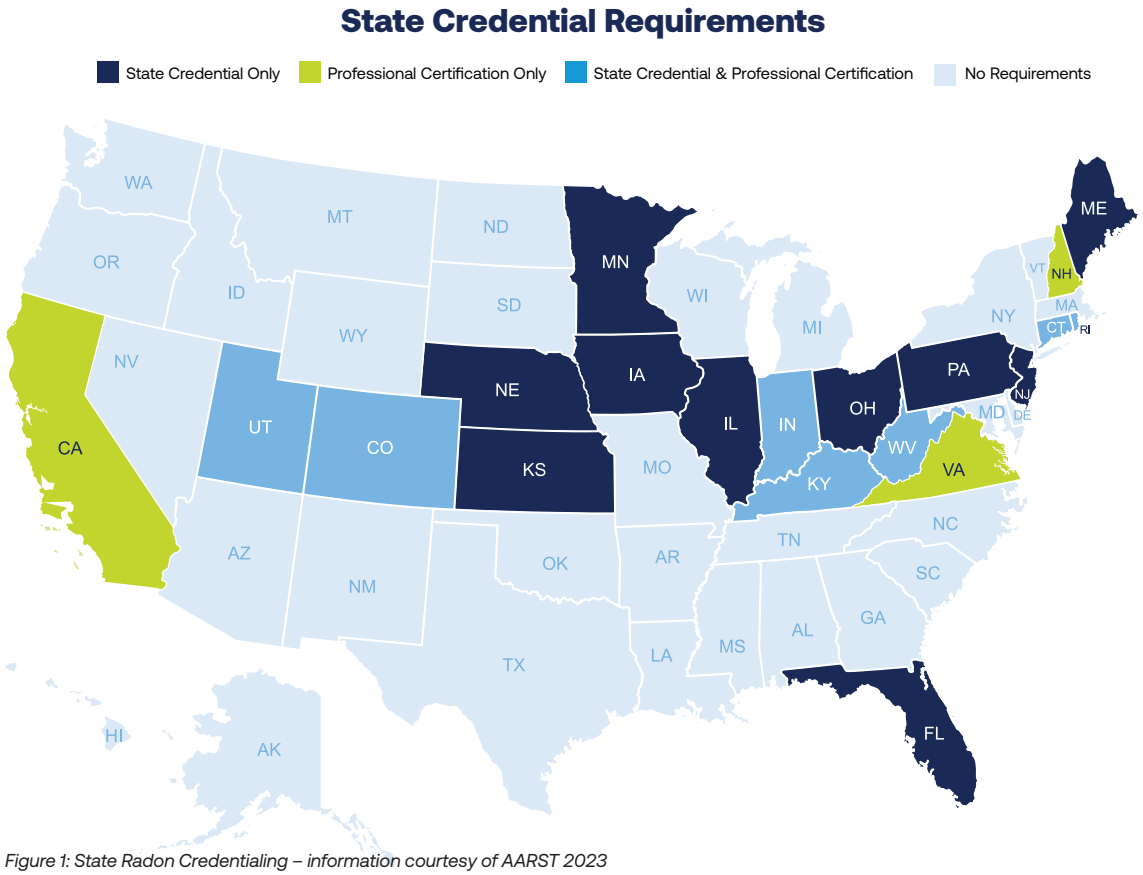

Figure 1: State Radon Credentialing – information courtesy of AARST 2023

The Current Landscape in States: Standards of Practice Requirements

In addition to administering professional credentialing requirements, a protective state program should include the requirement that radon testing and mitigation to be done according to recognized standards of practice. At this writing, thirteen states (CA, CO, CT, IN, IA, KY, MN, NH, NJ, PA, RI, UT, WV) require that radon professionals adhere to some, or all nationally recognized voluntary consensus standards of practice (VCS) developed and maintained by the AARST Consortium on National Radon Standards through the process established by ANSI. Nine states (FL, IL, IA, KS, ME, NE, OH, PA, VA) require standards developed by the state, the nationally recognized VCS from the American Society for Testing and Materials, or old standards developed by the EPA but no longer maintained.[1]

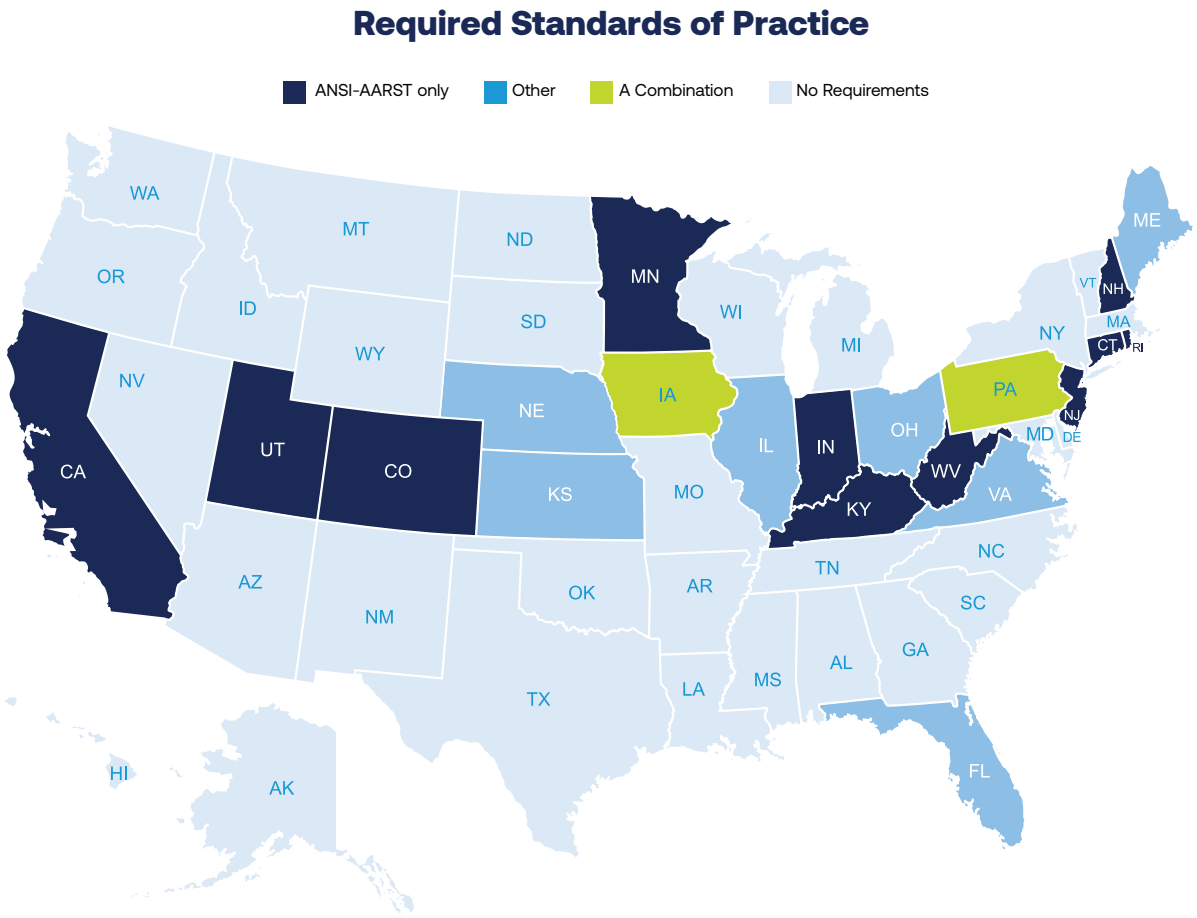

Figure 2: Required Radon Standards of Practice -- information courtesy of AARST 2023

1. Since 2019, in its "Guidance on the Use of Voluntary Consensus Standards for State Indoor Radon Grant Recipients," the EPA has advised states of the Agency's recommendation that citing or incorporating the most current VCS should be regarded as a best practice when implementing their radon programs. The current EPA-supported VCS are posted on the EPA's Radon Standards of Practice website.

The Problem:

Unregulated Radon Services Impede Progress on Risk Reduction Goals

Not all firms and individuals providing radon services are qualified to conduct accurate measurement or to carry out safe and effective mitigation, whether due to poor training or lack of accountability. The potential for this problem is greater in states where there is little or no independent oversight of the radon industry. Lack of a publicly accountable system to assure the quality of radon services leaves homeowners, tenants, building managers and owners with little recourse but to trust the individuals presenting themselves as qualified and compliant with best practices.

While radon testing and mitigation professionals in unregulated states certainly can provide good service—and many do—there is less recourse for the average homeowner-client to secure accountability for inadequacies of workmanship. Additionally, there is no mechanism to ensure that poorly performing firms either make corrections or cease operation.

There is ample evidence of deficiencies in the quality of the work done by some practitioners in the radon industry, as well as in effective mechanisms to prevent or address performance problems. In 2019, the Colorado Office of Policy, Research & Regulatory Reform (COPRRR) conducted a Sunrise Review of Radon Measurement & Mitigation Specialists. The report documented cases of fraudulent radon measurement, false advertising related to radon measurement, improperly installed radon mitigation systems, and fraudulent mitigation systems. COPRRR documented instances where, in the absence of adequate regulatory protections, consumers were harmed when:

- they were led to install unnecessary mitigation systems because of contractor misrepresentation of radon levels in the home;
- they were defrauded and put at risk by receiving falsely low test results;
- they paid for mitigation systems that caused property damage;
- or they paid for mitigation systems that either did not meet industry standards and were ineffective in mitigating radon in their homes or were fraudulent and did not work at all.

In such cases as these, customers living with a dangerous environmental hazard were given a false sense of security that the problem had been solved, putting the health of building occupants at greater risk.

While radon levels do naturally have some variability, improper testing technique is more likely to produce inaccurate test results, and fraudulent measurement activity, deliberately so. This can create two kinds of harm: if reported results are higher than actual levels, this can create the potential for needless repair and expense; and if the results are lower than actual levels, occupants could be left with a significant unaddressed risk of lung cancer and death.

Improperly performed mitigation work can result in problems that range from matters as simple as excessive noise, vibration or minor damage to the house to those as serious as carbon monoxide backdrafting or electrical fire hazards that increase the risk of immediate danger to life or health. Many things may be done by an unqualified or fraudulent mitigation contractor that increase the risk of lung cancer, such as:

- Ineffective or insufficient radon removal;
- Faulty system installation that increases the amount of radon delivered into occupied space;

- Poor installation technique that adversely affects the durability of equipment, increasing the risk of equipment failure that may go undetected by residents.

In the interest of public health, states currently without reasonable systems of oversight of radon services should consider adopting them. States' circumstances will differ, and solutions will vary, but it is clear there is a need and an opportunity to develop the capacity to ensure that citizens' interests and those of responsible businesses will be protected.

The Solution:

State Credentialing Programs Save Lives and Support Reputable Businesses

While private proficiency programs provide a reliable mechanism for certifying qualified persons who enter the radon profession, they do not have the force of law to impose consequences for ineffective performance beyond suspending or revoking the certification. One relatively simple and straightforward part of the solution is to ensure that effective state-level credentialing requirements governing how radon industry practitioners do their work are adopted and implemented. These are state-level regulatory systems that:

- Prohibit radon work by unqualified contractors;
- Adopt meaningful proficiency requirements for providers of radon services (which may consist of reliance on private proficiency program certification), e.g.,
    - Minimum expectations for continuing education, course content, and examinations,
    - Minimum competencies demonstrated by radon testing and mitigation professionals, and
    - Sufficient evaluation and approvals for measurement devices and testing laboratories;
- Issue appropriate license, registration, or state certification;
- Ensure radon service providers maintain adequate liability insurance;
- Require suitable record-keeping;
- Require reporting of work completed including addresses to facilitate compliance investigation;
- Provide for opportunities to inspect work and a process for holding practitioners accountable;
- Ensure compliance and take disciplinary action against noncompliance, ranging from levying of fines and imposing orders for corrective actions to suspending or revoking licenses and issuing cease-and-desist orders for extreme situations.

Some regulated states have also specified requirements for continuing education (CE), course content, proficiency examinations, and device and laboratory approval. Only one state, Florida, conducts its own examination, and most rely on the private proficiency programs for CE and examinations to determine if participants have achieved adequate mastery of course content.

In developing and implementing a program that governs requirements for radon service providers, states have considerable flexibility. States may have different administrative and regulatory frameworks, social environments, and levels of need that will understandably lead them to adopt different approaches to implementing standards and credentialing radon services. The level of legal authority adopted can be calibrated to the state's default approach for the regulation of professions. The scope of new work should be consistent with resources available

and executive branch capacity to administer. Training and proficiency requirements can be created by the state, or as is the common contemporary practice for such legislation, the state can accept certifications administered under EPA-acknowledged credentialing programs.

An emphasis should be placed on the basics, to ensure that:

- Adequate qualifications are demonstrated by
  - Those doing radon testing in homes and other buildings,
  - Those doing work in radon analysis laboratories,
  - Those doing radon mitigation work;
- There is clear identification of the administrative and enforcement tasks the state would need to complete;
- There is provision for staffing adequate to carry out those tasks; and
- There is provision for funding (such as from grants, appropriations or administrative fees) sufficient to make the process sustainable.

Identifying means for proactive enforcement is an important consideration because compliance systems relying exclusively on consumer complaints cannot identify trends in providers' adherence to consensus standards and are not structured to review the work product of every professional. A few states are leveraging NRPP's Mitigation Compliance Inspection credential and phone app to accomplish field inspections of mitigation systems to document and address issues. Desk audits of measurement documents are also being used on a proactive basis.

While the traditional approach to accomplishing the administrative and enforcement tasks for radon credentialing involves assigning these functions to an existing state agency, Kentucky's legislature has assigned them to a Board of Radon Safety. Like a state plumbing board or state medical board, the majority of the Board's membership consists of professionals who, as volunteers, are required to oversee regulatory activities including the issuance (and denial) of credentials and enforcement. This emerging approach is under consideration during legislative discussions in other states.

Recommendations for Taking Action

> A deliberate approach can achieve progress if it recognizes the full scope of the issues at hand and if it is advanced patiently yet persistently by a team committed to the goal of protecting people from radon.

While recognizing that attention must not be limited to certain areas or populations—indeed, that everyone should have access to services of the same high quality—it is important to appreciate fully the situation that exists in a state, and to consider factors such as:

- Prevalence of elevated radon;
- Problems that residents have experienced when dealing with poorly trained or unscrupulous radon service providers;
- Positions and perspectives on radon credentialing within the local radon service industry and other

stakeholders (real estate, housing, builders, local health agencies, medical and public health organizations, code officials, property owners);

- Coordination with other relevant codes, such as building, fire, and electrical codes, and other existing radon laws (schools, childcare, notification, disclosure, new construction, etc.);
- History of proposals and laws pertaining to radon (concerns, supporters/opponents, amendments, testimony);
- Lessons learned from implementation of credentialing programs by agencies in other states;
- Role of the lead state agency under law (e.g., limited to providing technical assistance only, ranging to authorization to propose measures, give testimony, enforce provisions, communicate with stakeholders);
- Resources needed to implement a credentialing program (staff, infrastructure, travel, training, and of course, funding).

Developing proposals for solutions that recognize those local realities, and fit the state's needs, are both more likely to become enacted policies and programs, and more likely to work.

No state need proceed "from scratch" to get these jobs done. The regulation-through-certification model allows states to build on the public-private partnerships inherent in EPA acknowledgement of private proficiency programs and EPA recommendation of the voluntary consensus standards developed by a diverse group of stakeholders. Unlike 30 years ago, when little national framework existed, state resources need not be expended on startup items such as the development of new types of credentials or methods of practice. Proven-effective program elements are readily available at no cost to states.

Examples of how other states have proceeded are readily at hand. In addition to a needs-documentation process such as that modeled recently by COPRRR, there is the set of existing legislation developed by various states across the country (see Environmental Law Institute's Database of State Indoor Air Quality Laws, Radon Laws Excerpt).

Furthermore, a draft of model legislative language has been proposed by AARST. In addition, the Conference of Radiation Control Program Directors (CRCPD) has published their Suggested State Regulations on Radon (SR-R) as another tool for states to use when adopting regulations.

Other essential components include the basics of good advocacy for protecting health:

- Identifying and involving supporters in the effort. These can range from government officials to citizens who have experience with lung cancer and high radon levels, or with poorly done radon work. Both local and national health and radon industry groups may also play a role in helping develop proposed actions that are strong and comprehensive.

- The real work of improving radon policy is often long and hard. It requires not only diligence in making the case, but also tenacity and resilience in the face of resistance and setbacks. Continuing work to seek allies is important to garner more widespread support. And over time, regular effort can accustom policymakers to the proposals before them.

Finally, even once a proposal is enacted or adopted, attention is needed to ensure that implementation proceeds as intended, and that problems that arise are recognized and addressed.

Conclusion

The advantages of a state credentialing program for radon service providers are many. Paramount is its value in protecting the public from radon health risk and from incompetent or unscrupulous business practices. The program also can serve to uphold the businesses and professional reputations of properly trained and ethical service providers and reduce the public's vulnerability to unqualified and/or exploitative providers now operating freely in the market.

Many states have demonstrated that it is clearly possible to operate a sustainable program supporting training, accountability and enforcement, for relatively low costs, costs that would otherwise be borne by a citizenry made victims of poor or outright fraudulent work practices. Responsible business-owners have shown they are willing to bear reasonable fees appropriately spent in their interest as a cost of doing business. Policymakers can support their constituents' health and financial well-being by enacting radon credentialing legislation or regulation that fits the needs of their state.

Disclaimer

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