

Testing Childcare Facilities for Radon

Why Require that Childcare Facilities Be Tested for Radon?

Radon is a naturally occurring colorless, odorless, and tasteless gas that seeps into buildings from the surrounding soil. Radon can damage lung tissue and lead to lung cancer over the course of a lifetime.

Children breathe deeper, faster, and proportionately more air than adults. A case <u>study</u> by the Agency for Toxic Substances and Disease Registry concluded that due to lung shape and size differences, children have higher estimated radiation doses than adults. Their lungs are developing faster, making them more sensitive to the indoor air quality. Children are among the most sensitive to radon gas. Children and adolescents grow quickly, and their cells are more sensitive to radiation. Individuals exposed to elevated levels of radon in their youth are more likely to develop radon-related illnesses later in life.

The only way to know whether an elevated level of radon is present in any room in a childcare facility is to test. It is recommended that all childcare facilities nationwide be tested for radon.

Summary: Existing State Policies on Radon in Childcare Facilities

Eleven states require testing childcare facilities for radon. Eleven require mitigation of childcare facilities with radon > 4 pCi/L. Requirement CO СТ DE FL IL IA MI NH NJ NY RI **Test for Radon** Х Х Ζ Ζ Х Ζ Х Center-Based Х Х Х Ζ Ζ Ζ Х Х Х Х • Home-Based Х Х Х Х Х Х • Per a Standard Х Х Х Х Х Ζ Х Х • By a Radon Professional Х • Report to Families Х Х Х Х Х Х • State Reviews Reports Mitigate > 4 pCi/L Х G/Z Х Х Х G Х G Ζ Х Ζ

X Required Z Required in high-risk zones only G Mitigation required only under a general health/safety requirement

Childcare Policy Landscape

- All states require licensing of childcare facilities.
- Most childcare licensing rules include environmental health/ safety; several specify radon requirements.
- Licensed childcare may be center-based (typically located in a non-residential building) or home-based (located in a residential building and often referred to as family child care).

Policy Information Source: Radon Child Care: Review of State Policies by the Environmental Law Institute

Model Legislation: Radon Testing in Childcare Facilities

- (1) **Testing for Radon**. Every childcare facility shall be tested in accordance with this section.
- (2) Frequency of Testing.
 - a. The initial measurement of a building's radon levels shall occur within one year of enactment.
 - b. Follow-up testing of a building with all radon levels below 4 pCi/L shall occur every five years or sixty days after the HVAC system has been altered or structural changes have occurred. This shall not supersede another state policy that is more protective.
 - c. Follow-up testing of a building with a radon level equal to or exceeding 4 pCi/L shall occur every two years.
- (3) Standard for Testing. Measurement shall be performed in accordance with
 - a. In a center-based childcare facility, ANSI-AARST MALB: Protocol for Conducting Measurement of Radon and Radon Decay Products in Schools and Large Buildings.¹
 - b. In a home-based childcare facility, ANSI-AARST MAH: Protocol for Conducting Measurement of Radon and Radon Decay Products in Homes.
- (4) **Testing Device**. Measurement shall be performed using a device that has been approved by an EPA-recognized certification program, such as a continuous radon monitor that has been calibrated and passed a device performance test, or a test kit that will be submitted for analysis to a laboratory approved by an EPA-recognized certification program.
- (5) **Qualified Personnel**. Measurement shall be performed by an individual who is currently licensed under the state radon licensing program or certified by an EPA-approved proficiency program.²
- (6) **Mitigation Requirement**. If radon measurement results for any room or area indicate that the radon level equals or exceeds 4.0 picocuries per liter of air (pCi/L), the building shall be mitigated:
 - a. If a center-based childcare facility, in accordance with ANSI-AARST RMS-LB: Radon Mitigation Standards for Schools and Large Buildings, and then retested in accordance with ANSI-AARST MALB: Protocol for Conducting Measurement of Radon and Radon Decay Products in Schools and Large Buildings until the radon levels are less than 4.0 pCi/L. Operation, maintenance and monitoring shall comply with Section 10.1.1 of ANSI-AARST RMS-LB: Radon Mitigation Standards for Schools and Large Buildings.
 - b. If a home-based childcare facility, in accordance with ANSI-AARST SGM-SF Soil Gas Mitigation Standards for Existing Homes, and then retested in accordance with ANSI-AARST MAH: Protocol for Conducting Measurement of Radon and Radon Decay Products until the radon levels are less than 4.0 pCi/L.
 Operation, maintenance and monitoring shall comply with Section 10 of ANSI-AARST SGM-SF Soil Gas Mitigation Standards for Existing Homes.
- (7) **Qualified Personnel**. Mitigation shall be performed by an individual who is currently licensed under the state radon licensing program or certified by an EPA-approved proficiency program.
- (8) **Reporting**. Results of radon testing, mitigation plans, and mitigation results shall be reported within 30 days after they have been received as follows:
 - a. individual written notification to parents;
 - b. individual written notification to staff;
 - c. posting in a prominent physical accessible location within the facility;
 - d. website and/or social media posting (post-mitigation test results only); and
 - e. report submitted to the state radon program and state childcare licensing agency.

¹ Alternative reference to the "ANSI AARST" standard: "a national consensus standard recommended by the US Environmental Protection Agency." ² Alternative reference to the "National Radon Proficiency Program:" "an EPA-recognized certification program."

The American Association of Radon Scientists and Technologists seeks to advance radon risk reduction in indoor environments in partnership with states and allies throughout the US. AARST stands ready to support and inform effective policy advocacy – please contact <u>nationalpolicy@aarst.org</u> about your efforts and how AARST can help.