

ANSI/AARST CCAH 2020



An American National Standard

Reducing Radon in New Construction of 1 & 2 Family Dwellings and Townhouses

AARST CONSORTIUM ON NATIONAL RADON STANDARDS
www.standards.aarst.org



CCAH Introduction

Reducing Radon in New Construction of One & Two Family Dwellings and Townhouses

Scope Summary

This standard provides minimum requirements for the rough-In of radon control system components in new dwelling units under construction. CCAH also includes minimum requirements for verifying if radon concentrations are below the national action level and, if required, activation of radon control systems. This standard is harmonized to compliment the standard designated as ANSI/AARST RRNC, which replicates construction activities for rough-In components only.

Significance of Use

This standard was developed to respond to the threat of cancer caused by radon gas in homes. Radon is the leading cause of lung cancer among nonsmokers and the second leading cause of lung cancer in the general population.¹ Most people receive their greatest exposure to radon in their homes. Radon in U.S. homes causes approximately 21,000 lung cancer deaths each year.² Be it at home, work or school, an individual's exposure to radon gas combines over time to increase the risk of preventable lung cancer.

Designation of this standard: CCAH

As used for catalogue identification, "CCAH" stands for Construction Code Applicable to Homes.

The Consensus Process and Continuous Maintenance

The consensus process developed for the AARST Consortium on National Radon Standards and as accredited to meet essential requirements for American National Standards by the American National Standards Institute (ANSI) has been applied throughout the process of approving this document.

This standard is under continuous maintenance by the AARST Consortium on National Radon Standards a program has been established for regular publication of addenda or revisions, including procedures for timely consensus action on requests for change to any part of the standard.

User Tools: User tools are posted online (<https://standards.aarst.org/public-review/>) as they become available such as interpretations and approved addenda updates across time.

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Notice of right to appeal: Bylaws and procedures for the AARST Consortium on National Radon Standards available online (<https://standards.aarst.org/public-review/>). Section 2.1 of Appendix B (Operating Procedures for Appeals) states, "Persons or representatives who have materially affected interests and who have been or will be adversely affected by any substantive or procedural action or inaction by AARST Consortium on National Radon Standards committee(s), committee participant(s), or AARST have the right to appeal; (3.1) Appeals shall first be directed to the committee responsible for the action or inaction."

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¹ World Health Organization, "WHO Handbook on Indoor Radon: A Public Health Perspective" 2009

² National Academy of Sciences, "Biological Effects of Ionizing Radiation" (BEIR VI Report) 1999



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Reducing Radon in New Construction of 1 & 2 Family Dwellings and Townhouses

SECTION 101 GENERAL

101.1 Purpose.

The purposes of this standard shall be as follows:

- 1) To specify radon control methods and techniques for use in dwelling units to reduce indoor radon concentrations to below the National Action Level (NAL) of 4.0 pCi/L [150 Bq/m³].
- 2) To provide minimum requirements for the *rough-In* of *radon control system* components in new *dwelling* units under construction and activation of the *radon control systems*, if required.
- 3) To provide a model set of requirements for adoption by states and local jurisdictions.
- 4) To provide a means for authorized personnel to inspect and evaluate *rough-In* components of *radon control systems* and activated *radon control systems* in new construction.

101.2 Scope.

This standard shall be applicable only to in newly constructed one- and two-family dwellings and townhouses.

SECTION 102 LIMITATIONS

102.1 General.

The requirements of this standard shall have limitations as indicated in Sections 102.1.1 through 102.1.6.

102.1.1 Results not guaranteed.

The application of the requirements of this standard does not guarantee that the *NAL* or any other specific indoor *radon* concentration will be attained.

102.1.2 Alterations.

The application of the requirements of this standard does not guarantee that the *NAL* or any other specific indoor *radon* concentration will be maintained where modifications, alterations, structural changes or additions to a dwelling occur.

102.1.3 ASD control.

The specifications within this standard are limited to *rough-In* of *radon control system* components and activation of *radon control systems* based on the methodology of *Active Soil Depressurization (ASD)*.

102.1.4 Soil-borne radon.

The requirements of this standard address only soil-borne *radon*. *Radon* from other sources such as water and building materials are not addressed.

102.1.5 Prior systems.

This standard shall not apply to *radon control* means that have been installed prior to the effective date of this standard.

102.1.6 Soil testing.

This standard does not require or provide guidance for soil testing or analyzing the *radon* potential of a building site prior to construction of the building.