

A-34: CONSIDERING RADON IN THE ENVIRONMENTAL REVIEW

Exemptions from having to consider radon in the contamination analysis:

- Buildings with no enclosed areas having ground contact.
 - Buildings containing crawlspaces, utility tunnels, or parking garages would not be exempt, however buildings built on piers would be exempt, if there is open air between the lowest floor of the building and the ground.
- Buildings that are not residential and will not be occupied for more than 4 hours per day.
- Buildings with existing radon mitigation systems - document radon levels are below 4 pCi/L with test results dated within two years of submitting the application to OCD-LGA and document the system includes an ongoing maintenance plan that includes periodic testing to ensure the system continues to meet the current EPA recommended levels.

Buildings tested within five years of the submission of application to OCD-LGA: test results document indoor radon levels are below current the EPA's recommended action levels of 4.0 pCi/L. For buildings with test data older than five years, any new environmental review must include consideration of radon using one of the methods outlined below.

Recommended Best Practice

When considering radon in the contamination analysis, HUD strongly recommends using the American National Standards Institute/American Association of Radon Scientists and Technologists (ANSI/AARST) radon testing standards for single- and multi- family buildings, schools, and large buildings, including those constructed using radon-resistant construction techniques. The ANSI/AARST standard describes how to conduct testing, interpret test results, and draft a Radon Test Report to document the process for the building owner (and to use as documentation for the ERR). The ANSI/AARST standards can be viewed online for free and are intended to be implemented by licensed radon professionals.

[ANSI/AARST Radon Testing Standards](#)

To find a licensed radon professional in your area contact the LDEQ radon program office at (225) 219-3677, the National Radon Proficiency Program (NRPP) at <https://nrpp.info>, or the National Radon Safety Board (NRSB) at <https://nrsb.org>.

Alternative Options

Using the ANSI/AARST radon testing standards is not the only option available for considering the risk that occupants may be exposed to high radon levels. If the environmental review preparer chooses not to conduct radon testing per the ANSI/AARST standards, one of the following alternative strategies must be used to consider radon in the contamination analysis. Review the HUD program office guidance in Section IV to ensure the strategy used to consider radon in the contamination analysis complies with specific program office requirements for the project.

1. Do-it-yourself (DIY) radon test kits may be used to measure radon levels in single-family dwelling units. In CDBG assisted single-family buildings with multiple units, one DIY test kit must be used for each dwelling unit. DIY radon test kits may be available for low or no cost through local health department offices and are available to purchase through the National Radon Program Services website. When using a DIY test kit, there can be quality control issues that affect the quality of the test results. To ensure the DIY test results are as accurate as possible, it is important to read the entire test kit instructions before activating the test device

[National Radon Program Services Test Kits](#)

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and to follow them fully. The EPA's Citizen's Guide to Radon and the ANSI/AARST standard for testing single-family housing are excellent resources for detailed instructions about conducting the radon test, including where to place the test device(s), how to prepare the home (whether to close the windows, turn off fans, the length of time to test), how to document the test process, and interpret the results. HUD encourages that test devices be approved by either the NRPP or NRSB. Contact the LDEQ radon program office at (225) 219-3677, or your local health department for assistance.

2. In remote or other areas where there are no licensed/certified radon professionals and/or DIY test kits cannot be shipped to a lab in sufficient time, the local government, such as a local health department or environmental department, may decide to purchase radon monitoring equipment and train staff to use it. Monitoring equipment, such as continuous radon monitors, should be used in accordance with the manufacturer's instructions and intended use and staff should ensure proper quality control and quality assurance practices are adhered to.
3. Scientific data review. Available science-based information may be used to determine whether the project site is located in an area that has average documented radon levels at or above 4 pCi/L. Contact the State/Tribal radon program office (or health department), as needed, for assistance with obtaining and interpreting available science-based information about radon levels in the area. Science-based information includes, but is not limited to:
 - a. State-generated radon information, such as surveys of radon levels from collecting radon measurement data or geological studies that identify high risk areas.
 - b. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Environmental Public Health Tracking, Radon Testing map. This map provides radon test data from national radon testing laboratories and states that can be viewed by state or county. Radon test data ranges from 1988 to the present.

When conducting a scientific data review in lieu of testing, there must be a minimum of 10 (ten) documented test results over the previous 10 years for which data is available in a given county for the scientific data review approach to be utilized. If there are less than 10 documented results over this period, then there is a lack of scientific data for the purposes of this notice and no further consideration of radon is needed if testing is infeasible or impracticable.

Additionally, testing data utilized should cover the smallest geographic area for which the minimum amount of documented test results exist, up in size to the county in which the project is located. The best available data must be used. Best available data refers to the most current data that best indicates the level of radon concentration at a project site. Whenever possible, utilize the average of the previous 10 years of data.

NOTE: Although science-based, a scientific data review does not determine the radon level in a specific building. Where feasible, HUD recommends using one of the radon testing strategies.

Mitigating Radon

When radon testing determines indoor air radon levels are at or above 4 pCi/L or the scientific data review determines the project site is located in an area that has documented radon levels at or above 4 pCi/L, the Environmental Review Record (ERR) must include a mitigation plan.

When the determination is based on a scientific data review, if feasible, HUD recommends conducting radon testing (using one of the testing strategies described in the previous sections) to confirm radon levels in the building(s) proposed for CDBG funding. If testing then demonstrates that radon levels within the building are below 4 pCi/L, mitigation would not be required; environmental review preparers can simply document the test results in the ERR. The mitigation plan must identify the radon level; consider the risk to occupants' health; describe the

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radon reduction system that will be installed; whenever possible, establish an ongoing maintenance plan to ensure the system is operating as intended; establish a reasonable timeframe for implementation; and require post-installation testing. Where feasible, post-installation testing should be conducted by a licensed radon professional. In an area where there are no licensed radon professionals, there may be other personnel, such as trained staff, other professionals (i.e., engineers, geologist, scientists, public health staff) who have experience conducting radon testing or have the relevant skills and knowledge to follow the device instructions or ANSI/AARST test protocols and mitigation standards. For assistance contact the LDEQ radon program office at (225) 219-3677, LDH at (888) 293-7020, or the National Radon Program Services at <https://sosradon.org>, or refer to the applicable ANSI/AARST standard for guidance. If using the ANSI/AARST mitigation standard to install the radon reduction system, follow the guidance in the standard to draft the mitigation and the operation, maintenance, and monitoring plans.

Documenting the Environmental Review Record

Under HUD's regulations, 24 CFR 58.38(a)(3) the Grantee is required to document the radon evaluation as part of the contamination analysis in the ERR. Radon documentation information should be included under "compliance determinations" in the Contamination and Toxic Substances section of the environmental format for CEST and EA projects. If testing is not conducted, the documentation will need to provide evidence of average documented radon test results covering the project site or its county, other science-based information suggesting radon levels at the project site, or evidence of a lack thereof.

In instances where radon testing will be conducted but cannot be conducted until after the environmental review record is certified (i.e., new construction or certain rehabilitation projects) then the initial documentation would not include a radon evaluation but must include a condition for post-construction radon testing followed by mitigation if needed.

The environmental preparer must update the environmental review record with the radon evaluation and proof of any required mitigation when complete. Acceptable methods to document radon consideration in the ERR include:

- ANSI/AARST standard: Include a copy of the test report and mitigation plan (if applicable) as described in the standard in the ERR. For Office of Housing programs, follow program guidance requirements on timing and documentation.
- DIY and other radon test strategies: Document the test device, time period of test, test conditions (HVAC system off windows closed, outside temperature), test results, and other conditions relevant to test conditions. Refer to the applicable ANSI/AARST standard as guidance.
- Review of CDC radon testing data, geologic studies/maps, other scientific data: Describe and cite the maps and data used to determine the area wide radon levels and include copies of all supporting documentation (maps/studies) in the ERR.
- In instances where Grantees are unable to obtain science-based data, environmental review preparers must consider the feasibility of radon testing if they have not already. If the Grantee determines that testing is infeasible or impracticable, the environmental review must document the basis for this determination. Acceptable documentation in these scenarios where testing is infeasible and science-based data is not available includes but is not limited to:
 - correspondence with state and local radon control agencies indicating a lack of scientific data evidencing radon levels at the project site, a copy of CDC Environmental Health Tracking Network information showing the project site is located in a county with a lack of scientific data, and a basis for the conclusion that testing would be infeasible or impracticable. The RE, grantee, applicant, or recipient is not required to submit additional documentation substantiating their decision that testing is infeasible or impracticable.

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- When all this is documented in the ERR, no further consideration of radon is needed and no further action with respect to radon is needed for the environmental review.

Resources for Implementation of Radon Compliance

Costs for radon testing and mitigation are considered eligible program costs in the LCDBG program. As such, costs for radon testing and mitigation can be included in the total project costs funded by OCD-LGA. However, costs for ongoing operation and/or maintenance of installed mitigation systems are **not** eligible under the LCDBG program.