



Radon Testing In Schools Progress Report

Report Period

2020-2024

Required by:

20-A M.R.S. § 4013; PL 2019, c. 172

Submitted by:

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Executive Summary

Pursuant to 20-A M.R.S. § 4013, Maine's Department of Health and Human Services (DHHS) is required to report on the progress made toward testing for radon in schools across the state. Public Law 2019, chapter 172 was enacted by the 129th Maine State Legislature to encourage radioactive radon gas testing in all occupied elementary and secondary schools, or other buildings of the school administrative units (SAUs). The Division of Environmental and Community Health within the Department of Health and Human Services, Maine Center for Disease Control and Prevention (Maine CDC) is responsible for programs related to radon and associated radiological concerns and must provide the Legislature and the Governor with a five-year summary of reported radon test results. This report shows that 70 (12%) of the approximated 595 public elementary, middle, and high schools in Maine have been tested for radon and, of those 70 tested from 2019-2025, 23% showed elevated radon levels in at least one room within the building.

Background

Maine has long recognized radioactive radon gas as an environmental health problem, caused in part by the high uranium content in the state's bedrock. Radon is a decay product of radium which itself is a decay product of uranium. Unlike most naturally occurring radioactive elements, radon is a gas, allowing it to move through cracks and fissures in bedrock and enter homes, businesses, and schools where it is inhaled. It can also dissolve into the aquifer, contaminating well water to be ingested.

Radon is the second leading cause of lung cancer in the United States, and Maine ranks third worst in the nation for estimated radon-induced lung cancer. Each year, based on U.S. Environmental Protection Agency (EPA) estimates, approximately 310 Mainers¹ develop lung cancer from radon exposure, and an estimated 165 Mainers die as a result². Approximately 1 in 15 homes nationally have levels exceeding the EPA recommended action level of 4 pCi/L (picocuries per liter). The national average level is 1.3 pCi/L. In Maine, the rate is 1 in 3 with an average level of 5.9 pCi/L, nearly four-and-a-half times more than the national average. For an overview of U.S. radon zones, see [EPA-Map-Radon-Zones-US-2022](#) .

The risk for lung cancer from long term exposure to 4.0 pCi/L, the EPA action level (threshold for mitigation to reduce exposure), of radon in your home, school, or workplace is equivalent to

¹ <https://aarst.org/Report-Cards/ME-Report-Card.html> Accessed August 14, 2025

² [Health Risk of Radon | US EPA](#) radon exposure causes 21,000 lung cancer deaths per year in the US when exposed to 1.3 pCi/L but Maine's average is 5.9 pCi/L so the MRP risk assessment estimates 165 Mainers will die based on the Maine population because of radon exposure. Based on Maine Lung Cancer numbers roughly 983 cases diagnosed per year and about 646 deaths per year. [Maine Cancer Blueprint](#) Calculation based on incidence rate of 70 per 100,000 people and a mortality estimate of 46 per 100,000 people.

smoking eight cigarettes a day or receiving 200 chest X-rays per year.³ Children face even greater potential risk because of their smaller lung capacity, faster breathing rates, longer lifespans, and increased sensitivity to radiation. In Maine, the question is not whether radon is present in homes, schools, or workplaces, but rather how much.

Legislative History

In 1989, the Radon Registration Act (22 M.R.S. chapter 165), became law, requiring anyone who tests, mitigates, or consults on radon to be registered with Maine CDC - Division of Environmental and Community Health and to report by zip code the results of the tests performed. In 2009, the law was amended to require reporting by address, improving both quality and usefulness of the data. Public law 2019, c. 172, *An Act to Authorize Public Schools to Periodically Test for Radon*, established statutory language encouraging school administrative units (SAUs) to have radon testing conducted every five years. Pursuant to 20-A M.R.S. § 4013, the SAU must maintain, make available for review and notify parents, faculty, and staff of the test results and to report these test results to Maine’s Department of Education (DOE) and the Department of Health and Human Services (DHHS). The law further requires DOE to disburse available funds to SAUs to use for radon testing and, beginning October 1, 2025, DHHS must report to the Legislature and the Governor the compilation of schools’ test results for the most recent five-year span. Additionally, DHHS is directed by the Maine Radon Registration Act to adopt rules to implement the testing outlined in statute.

Funding

For more than 30 years, the EPA has provided critical funding to support state, territory, and tribal efforts to reduce radon-related lung cancer through the State Indoor Radon Grants (SIRG) program⁴. As authorized, 20-A M.R.S. § 4013(2), Maine CDC Radon Control Program (RCP) has used the grant awards to pay for radon testing in schools following the legislation passed in 2019, and, to a lesser extent, monies from the Radon Relief Fund generated by radon service provider registration fees. Annual SIRG grant allocations range from \$60,000 to \$120,000.

³ https://kentuckyradon.org/wp-content/uploads/2020/10/2020KARP_Know_Your_Number. Accessed August 14, 2025

⁴ SIRG program provides for states and tribes to receive grant funds from EPA that help finance their radon risk reduction programs; recipients must provide a minimum of 40% in matching funds.
<https://www.epa.gov/radon/state-and-tribal-indoor-radon-grants-sirg-program-and-resources>

EPA SIRG Amounts awarded to Maine CDC Radon Control Program since PL 2019, c. 172 was enacted:

Year	Total SIRG Award
2020	\$75,000 (Extended from 2018)
2021	\$50,000
2022	\$60,000
2023	\$59,103
2024	\$120,000
Total	\$364,103

Progress Toward SAU Radon Testing

To date, 70 of 595 Maine schools have been tested for radon. This testing was performed on a first-come-first-serve basis conducted by registered radon professionals and registered radon laboratories, with the cost covered by SIRG funding and distributed by DHHS. RCP and Registered Radon Professionals collectively brought awareness to professional organizations, associations, and school administrative units resulting in the participation of 70 schools in the following 29 towns:

- | | | |
|-----------------|----------------|--------------------|
| 1. Alexander | 11. Eastport | 21. Rockland |
| 2. Arundel | 12. Hiram | 22. Sanford |
| 3. Bangor | 13. Gorham | 23. Shapleigh |
| 4. Biddeford | 14. Kennebunk | 24. Skowhegan |
| 5. Calais | 15. Kingman | 25. South Portland |
| 6. Charlotte | 16. Kittery | 26. Sullivan |
| 7. Cushing | 17. Lubec | 27. Tenants Harbor |
| 8. Danforth | 18. Owl’s Head | 28. Thomaston |
| 9. Dayton | 19. Pembroke | 29. Van Buren |
| 10. Dennysville | 20. Perry | |

Comprehensive radon analysis requires testing in every room to capture variable results and, for any rooms larger than 2,000 ft², multiple tests are performed. The cost to test a single school can vary from \$2,000 (Kingman Elementary School) to more than \$20,000 (Kennebunk High School), depending on size. On average, testing costs about \$6,800 per school. Currently, 76 additional schools have indicated interest in participating in the program and are on a waiting list. This testing is expected to commence once the awarded grant funds have been encumbered.

Schools are made aware of SIRG funding through public and private outreach efforts. Interested school administrative units contact the State Radiation Control Program (RCP) to obtain a list of certified specialists that are registered in the state of Maine to perform this work. Under the statute, once the testing has been completed, the results are to be provided to the RCP and to each school administrative unit. Additionally, according to statute, schools must maintain this information and notify parents, faculty, and staff of test results. It is also the responsibility of the school administrative units to cover costs associated with radon mitigation systems.

Figures 1-3 depict the locations of schools where radon testing was conducted between 2019-2025 and showed elevated radon levels.

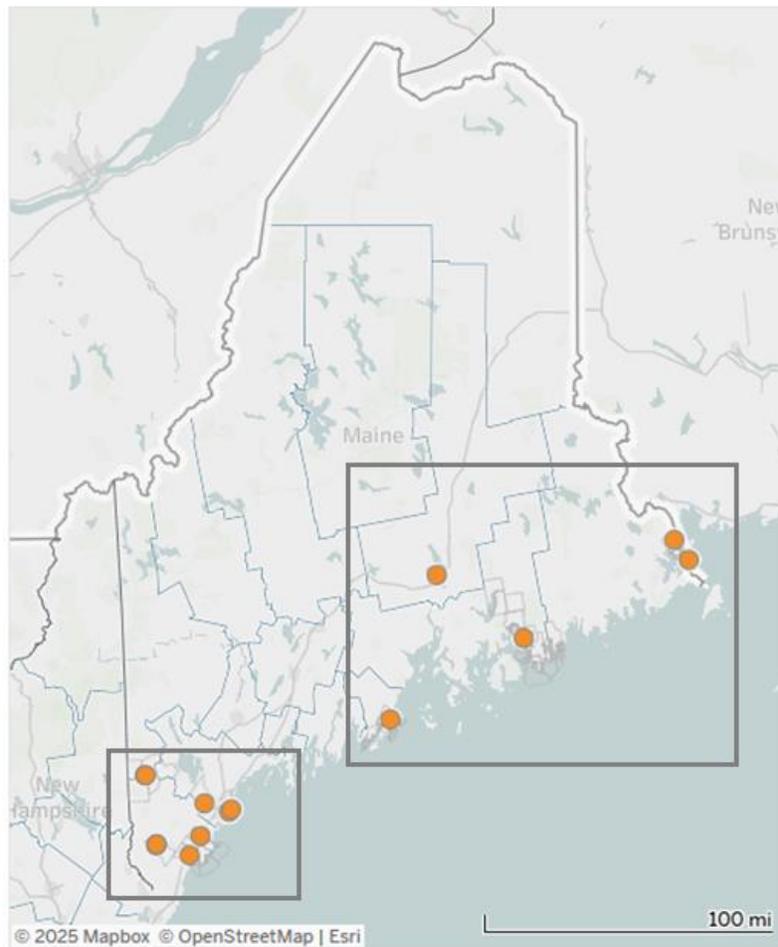


Figure 1 Overview of Radon Testing School Locations

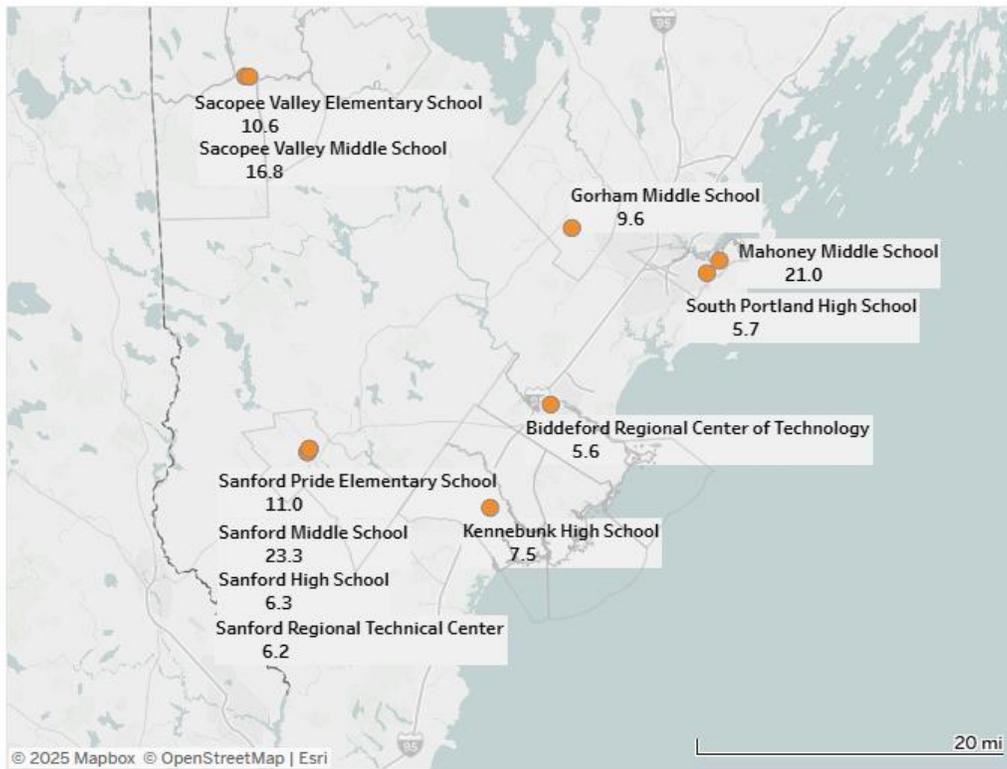


Figure 2 Southern Maine Maximum Radon Test Results (schools with one or more elevated test results)

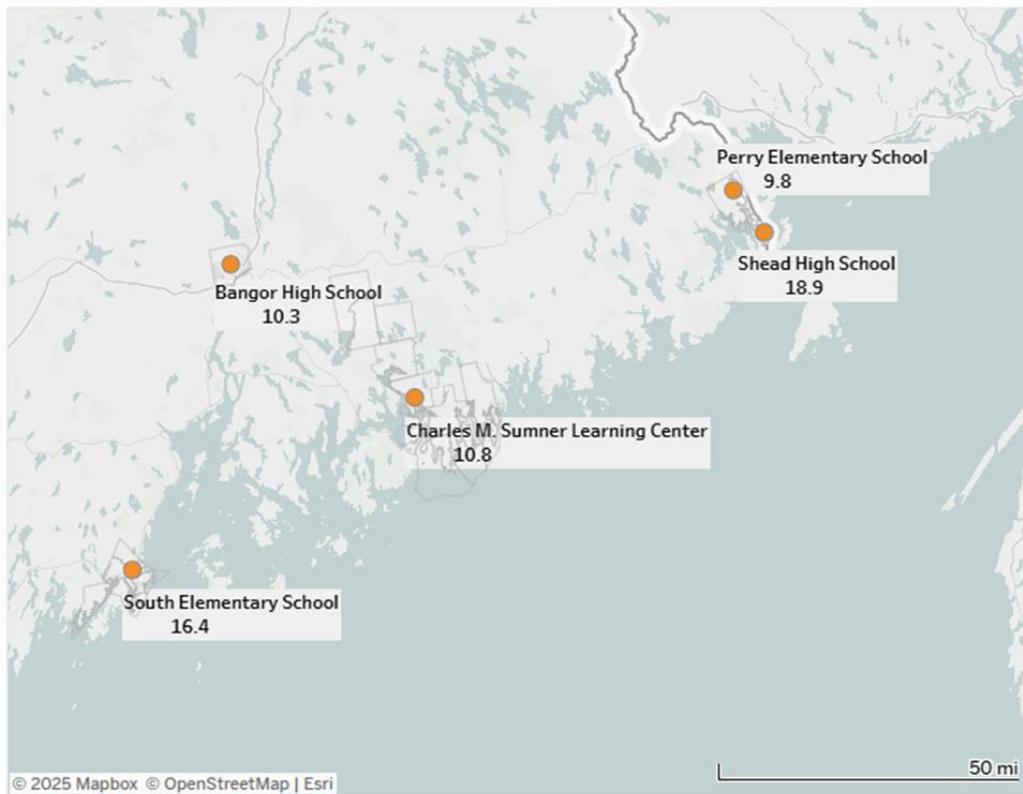


Figure 3 Northern Maine Maximum Radon Test Result by School (schools with one or more elevated test results)

Number of Schools Tested Utilizing Grant Funding

As of the date of this report, 70 Maine public schools have been measured for radioactive radon gas. Of these, 67 schools utilized EPA SIRG funding to subsidize testing, while three schools covered the costs through other sources such as funding directly from schools.

Number of Radioactive Radon Tests Performed

Since the law was enacted in 2019, approximately 5,268 tests have been conducted in administrative school units. Of these, 5,084 were subsidized using EPA SIRG funds, while 184 were paid for through other sources.

Results

Among the 70 schools tested, 16 (23%) had a test result above EPA's action level of 4.0 pCi/L in at least one room. Radon results exceeding the action level were identified in the following schools:

School Name	No. of Rooms with Elevated Radon Levels	Max Radon Level
Bangor High School	1	10.3
Biddeford Region Tech Ctr.	1	5.6
Charles M. Sumner Learning Ctr. (Sullivan)*	7	10.8
Shead High School	1	18.9
Gorham Middle School	1	9.6
Kennebunk High School	1	7.5
Perry Elementary School	3	9.8
Sacopee Valley Elementary	8	10.6
Sacopee Valley Middle School	12	16.8
Sanford Tech Ctr.	2	6.2
Sanford High School	3	6.3
Sanford Middle School	36	23.3
Sanford Pride Elementary School	6	11.0
South Elementary School (Rockland)	1	16.4
South Portland High School	1	5.7
Mahoney Middle School (South Portland)	1	21.0

Mitigation

20-A M.R.S. § 4013 requires reporting of radon test results, though the law does not require schools to mitigate or to follow up with DHHS. Maine CDC RCP conducts outreach and educational events encouraging school administrators to mitigate. The current recommended practice for school buildings with elevated radon results is to utilize single room mechanical ventilation systems called “unit ventilators” to increase amount of fresh air brought into the building (reference the American Society of Heating, Refrigerating, and Air Conditioning Engineers [ASHRAE] 62.1 per Maine Public School Standards & Guidelines for New School Construction and Major Retrofit Projects. Follow up testing is the responsibility of the school administrative unit, and it is necessary to determine if the installed unit ventilators are adequately mitigating radon gas.

Conclusion

20-A M.R.S. § 4013, provides guidelines instructing the implementation of testing activities to protect students and staff from unsafe levels of radon. However, budget limitations and uncertainty of future of SIRG funding presents barriers for effectively testing all schools in a reasonable timeframe. At the current funding level, testing rate, and fee structure, it will take 37 years and cost \$3,579,000, excluding RCP staff costs, to complete initial testing. This estimate reflects testing each school only once and does not account for the recommended follow-up radon testing of all SAU buildings on the five-year cycle intended by the legislation. Currently, the RCP anticipates having SIRG funds to test an additional 15 schools in 2025-2026 but does not have a funding mechanism beyond 2026. With additional, consistent financial support, the recommended radon testing in schools could be completed well in advance of the current estimated timeline of 37 years.