

MEMORANDUM

October 15, 2015

TO: Transportation, Infrastructure, Energy and Environment Committee

FROM: Robert H. Drummer, Senior Legislative Attorney 

SUBJECT: **Worksession 2: Bill 31-15, Sale of Real Property – Radon Test – Single-family home**

Bill 31-15, Sale of Real Property – Radon Test – Single-family home, sponsored by Lead Sponsors Councilmembers Rice and Katz, was introduced on June 16, 2015. A public hearing was held on July 14 and a Transportation, Infrastructure, Energy and Environment (T&E) Committee worksession was held on July 23.

Background

Radon is a radioactive gas found in the air that comes from the natural breakdown of uranium in soil, rock, and water. High levels of radon can cause serious illnesses and often occur in single family homes in the County. Although radon remediation from a single family home is possible, many people purchase a home without knowing if high levels of radon exist in the home. Radon is already listed as one of the hazardous materials that a seller must disclose to the buyer of a single-family home if the seller has actual knowledge of its existence under State law. See, Md. Code Ann., Real Prop. §§10-702, 10-603, and 10-604. As the County Attorney's Office pointed out, State law does not create an affirmative duty for the seller to discover if radon exists in the house. See the County Attorney Bill Review Memorandum at ©4-5.

Bill 31-15 would complement State law by requiring the seller of a single-family home to test for radon and give the buyer a copy of the radon test results. It would also require the seller to provide the buyer with an estimate to reduce radon under certain circumstances.

Public Hearing

There were no speakers at the public hearing on July 14. The Council did receive written testimony on July 21 from the Greater Capital Area Association of Realtors (GCAAR) opposing the Bill. See ©19-21.

T&E Committee Worksession July 23

Lisa Feldt, DEP Director, and Walter Wilson, County Attorney's Office, represented the Executive Branch. Meredith Weisel, representing the Greater Capital Area Association of Realtors, also answered questions from the Committee. The Committee reviewed the Bill and discussed radon test reliability, procedures, and remediation of high levels of radon. The Committee requested more information on the cost to test for radon and remediate and efforts by other local jurisdictions to reduce radon exposure.

Issues

1. Why test for radon?

Radon is a naturally occurring, cancer-causing, radioactive gas that you cannot see, smell, or taste. The United States Environmental Protection Agency (EPA) reports that radon has been found in 1 out of every 15 homes tested all over the United States. Breathing air containing radon increases a person's risk of lung cancer. Proper testing is the only way to find out if a house contains high levels of radon.¹ High levels of radon can be reduced using a sub-slab depressurization system that does not require major changes to the house. The system usually consists of a vent pipe and fan.²

Radon testing is a simple, inexpensive process. There are passive devices that do not need power to function which are available in hardware, drug, and other retail and online stores. There are also active devices that require power and can monitor for radon over time. Passive devices come with a simple kit that must be left in the lowest level of the house for a specific number of days and mailed to a qualified laboratory for analysis. Frequently opening doors or windows near the device can adversely affect the accuracy of the test. A radon test kit is relatively inexpensive and effective if used correctly.

2. Are there other local laws governing radon disclosure in residential property sales?

The American Association of Radon Scientists and Technologists (AARST) is a non-profit professional organization of members who are dedicated to the highest standard of excellence and ethical performance of radon measurement, radon mitigation and transfer of radon information for the benefit of members, consumers and the public at large.³ AARST tracks State laws governing radon disclosure in property sales. According to the latest AARST July 2015 Policy Brief, no State has enacted a law that requires radon testing in homes. See the AARST Policy Brief at ©12-17. Minnesota,⁴ Illinois,⁵ and Kansas⁶ have enacted radon disclosure laws requiring a home seller to disclose information about radon to a buyer, including test results, if available, and information about radon risks. Maryland requires a seller to disclose to the buyer actual knowledge of radon levels in a home as a hazardous material. The University of Minnesota School of Public Health published a study of State Radon Programs that surveys state laws on radon testing and disclosure.⁷

¹ See the EPA Home Buyer's and Seller's Guide to Radon at: <http://www.epa.gov/radon/pubs/hmbyguid.html>.

² See the EPA Consumer's Guide to Radon Reduction at: <http://www.epa.gov/radon/pubs/consguid.html>.

³ See the AARST website at www.aarst.org

⁴ See, <https://www.revisor.mn.gov/statutes/?id=144.496>.

⁵ See, <http://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=095-0210>.

⁶ *K.S.A. 58-3078a*.

⁷ See, Lamont & Angell, U.S. STATE RADON PROGRAMS DATA COLLECTION & PROGRAM ACTIVITIES, at:

https://aarst.org/proceedings/2012/06_US_STATE_RADON_PROGRAMS_DATA_COLLECTION_PROGRAM_ACTIVITIES.pdf

3. What are the potential drawbacks of the Bill?

A seller can intentionally or unintentionally change the results of the test by not following the directions. The radon detection device should be placed in the lowest level of the home that could be used regularly, but not in a closet, stairway, hallway, crawl space or in an enclosed area of high humidity or high air velocity. The seller can adversely affect the results by simply opening a window near the device. Therefore, a buyer may receive a false negative test result that discourages a buyer from testing after occupying the home. However, it is more likely that the buyer will receive much needed information about the risks of radon, accurate test results, and a reason to perform another test. The Bill also requires the seller to use a test kit and laboratory that is approved by the Department of Environmental Protection. DEP provided information on types of tests, the methods of remediation, and the costs for each. See ©23-24.

4. Should the Bill require the seller to do the radon test?

The lead sponsors, Councilmembers Rice and Katz, plan to introduce an amendment that would require a radon test to be performed within one year before settlement on the property by either the seller or the buyer. See Rice and Katz Amendment 1 at ©22. Currently, a home inspector is likely to recommend a radon test, but it is not required. Under this amendment, the home inspector is likely to tell the buyer that a test must be performed if the seller has not provided a recent test result. If remediation is necessary, the buyer and seller can negotiate over the cost to remediate. However, if both the seller and the buyer are jointly responsible for testing, there is no one left to file a complaint if it is not done before settlement. This amendment would make it more difficult to enforce the law. The Rice and Katz Amendment would require the seller to either perform the test or permit the buyer to perform the test. Therefore, a seller who refused to either perform the test or permit the buyer to perform the test would be subject to a civil citation. **Council staff recommendation:** amend the Bill to require the seller to either test or permit buyer to test before settlement.

5. Should the Bill require the seller to provide an estimate of the cost to remediate a high level of radon?

In addition to a test result, the Bill would require the seller to give the buyer a written estimate from a licensed contractor to remediate a level of radon above 4 picocuries per liter. This would be useful to complete the real estate transaction because the parties could renegotiate the sales price to cover the cost. Obtaining an estimate would be easier for the seller who has control over the property. Of course, a buyer would have no obligation to use the licensed contractor the seller contacted. Under Rice and Katz Amendment 1, the Bill would not require the seller to provide an estimate. **Council staff recommendation:** adopt Rice and Katz Amendment 1.

6. Should the Bill apply to a condominium or cooperative unit in a multi-family residence?

Although radon may be present in the lowest level of a multi-family residence, a requirement for the unit owner to obtain an estimate from a licensed contractor to remediate high levels of radon may be problematic in a common ownership community. Common ownership communities are governed by bylaws designed to maintain the common space for the benefit of all unit owners. A unit owner may not be authorized to install a radon pipe into the slab and vent

it out of the roof or outside wall. DEP suggested, at the first worksession, that the Bill be clarified that it would not apply to a residential unit in a condominium or cooperative. **Council staff recommendation:** amend the definition of single-family home to exclude a residential unit in a condominium or cooperative as follows:

Amend lines 8-9 as follows:

Single-family home means a single-family detached or attached residential building. Single-family home does not include a residential unit that is part of a condominium regime or a cooperative housing corporation.

7. Should the procedure used to perform the test be specified in the Bill?

DEP suggested that the Bill require that the radon test be performed in accordance with the protocols for the testing device used. EPA guidelines are more detailed than simply “testing the living quarters of the house.” EPA’s *Protocols for Radon and Radon Decay Product Measurements in Homes* (http://www.epa.gov/radon/pdfs/homes_protocols.pdf) provides more details on this, including the following:

The measurements should be made in the lowest level which contains a room that is used regularly. Test areas include family rooms, living rooms, dens, playrooms, and bedrooms. A bedroom on the lower level may be a good choice, because most people generally spend more time in their bedrooms than in any other room in the house. If there are children in the home, it may be appropriate to measure the radon concentration in their bedrooms or in other areas where they spend a lot of time, such as a playroom, that are situated in the lowest levels of the home.

Council staff recommendation: amend the definition of radon test on lines 12-13 of the Bill as follows:

Radon test means measuring the amount of radon in an indoor space:

- (1) with a [[kit]] device made for this purpose [[and]];
- (2) approved for use by the Director; and
- (3) performed in accordance with the protocols specified for the device used.

8. Who would enforce the Bill?

Bill would amend Article III of Chapter 40, Sale of Real Property, which is enforced by the Office of Consumer Protection pursuant to Section 40-14. A violation would be a Class A violation with a maximum penalty of \$500 for a first offense and \$750 for a subsequent offense.

9. Should the Bill be enacted?

Radon is a serious problem that occurs in many homes in the County. In 2005, the United States Surgeon General advised that indoor radon is the second-leading cause of lung cancer. EPA estimates that 21,000 lung cancer deaths are related to radon each year.⁸ These facts cannot be ignored. The Bill would increase testing for radon in single family homes in the County without unduly burdening real estate sales. The Greater Capital Area Association of Realtors urges the Council to amend the Bill to only require a seller to provide a buyer with educational material about radon. They argue that this is being done on a voluntary basis now, and that mandatory testing would complicate the real estate transaction. We are unsure how adding additional paperwork to an already paper heavy real estate transaction would significantly increase radon testing and remediation. **Council staff recommendation:** enact the Bill with Rice and Katz Amendment 1.

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⁸ See the EPA Chart at ©18.

Bill No. 31-15
Concerning: Sale of Real Property –
Radon Test – Single-family home
Revised: June 16, 2015 Draft No. 2
Introduced: June 16, 2015
Expires: December 16, 2016
Enacted: _____
Executive: _____
Effective: _____
Sunset Date: None
Ch. _____, Laws of Mont. Co. _____

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND

Lead Sponsor: Councilmembers Rice and Katz

AN ACT to:

- (1) require the seller of a single-family home to test for radon and give the buyer a copy of the radon test results;
- (2) require the seller to provide the buyer with an estimate to reduce radon under certain circumstances; and
- (3) generally amend the law governing the sale of a single-family home in the County.

By adding

Montgomery County Code
Chapter 40, Real Property
Section 40-13C

Boldface	<i>Heading or defined term.</i>
<u>Underlining</u>	<i>Added to existing law by original bill.</i>
[Single boldface brackets]	<i>Deleted from existing law by original bill.</i>
<u>Double underlining</u>	<i>Added by amendment.</i>
[[Double boldface brackets]]	<i>Deleted from existing law or the bill by amendment.</i>
* * *	<i>Existing law unaffected by bill.</i>

The County Council for Montgomery County, Maryland approves the following Act:

1 **Sec. 1. Section 40-13C is added as follows:**

2 **40-13C. Radon test -- single-family home.**

3 (a) Definitions. In this Section, the following words have the meanings
4 indicated:

5 Department means the Department of Environmental Protection.

6 Director means the Director of the Department or the Director's
7 designee.

8 Single-family home means a single-family detached or attached
9 residential building.

10 Radon means a radioactive gas found in the air that comes from the
11 natural breakdown of uranium in soil, rock, and water.

12 Radon test means measuring the amount of radon in an indoor space with
13 a kit made for this purpose and approved for use by the Director.

14 (b) Before signing a contract for the sale of a single-family home located in
15 the County, the seller must provide the buyer with:

16 (1) a copy of the results of a radon test performed on the living quarters
17 of the home less than one year before the date of the contract; and

18 (2) an estimate from a licensed contractor to reduce any radon level of
19 4 picocuries per liter or more to less than 2 picocuries per liter.

20 *Approved:*

21 _____
George Leventhal, President, County Council

Date

22 *Approved:*

23 _____
Isiah Leggett, County Executive

Date

LEGISLATIVE REQUEST REPORT

Bill 31-15

Sale of Real Property – Radon Test – Single-family home

DESCRIPTION: Bill 31-15 would require the seller of a single-family home to test for radon and give the buyer a copy of the radon test results. It would also require the seller to provide the buyer with an estimate to reduce radon under certain circumstances.

PROBLEM: Radon is a radioactive gas found in the air that comes from the natural breakdown of uranium in soil, rock, and water. High levels of radon can cause serious illnesses and often occurs in single family homes in the County. Although radon remediation from a single family home is possible, many people purchase a home without knowing if high levels of radon exist in the home.

GOALS AND OBJECTIVES: Ensure that a buyer of a single family home in the County learns if the house contains high levels of radon before purchasing it.

COORDINATION: Department of Environmental Protection

FISCAL IMPACT: To be requested.

ECONOMIC IMPACT: To be requested.

EVALUATION: To be requested.

EXPERIENCE ELSEWHERE: To be researched.

SOURCE OF INFORMATION: Robert H. Drummer, Senior Legislative Attorney

APPLICATION WITHIN MUNICIPALITIES: To be researched.

PENALTIES: Not applicable.



Isiah Leggett
County Executive

Marc P. Hansen
County Attorney

OFFICE OF THE COUNTY ATTORNEY

MEMORANDUM

July 7, 2015

To: Lisa Feldt, Director
Department of Environmental Protection

From: Walter Wilson
Associate County Attorney

Via: Edward Lattner, Chief
Division of Government Operations

Re: Bill 31-15 (Sale of Real Property—Radon Test—Single-family home)

The County Executive's Office has requested that this office forward you our comments concerning Bill 35-15. The proposed legislation would amend County law by adding radon testing results to the current list of mandatory disclosures under Article III of Chapter 40 that apply to persons selling residential properties in the County. Bill 35-15 would require that a seller, before signing a contract for the sale of a single-family home, provide the buyer with the results of a radon test that has been performed not more than one year before the date of that contract. If those test results indicate the presence of radon at levels of at least 4 picocuries per liter then the seller must also deliver to the buyer an estimate, prepared by a licensed contractor, of the cost of radon remediation to a level below 2 picocuries per liter.

Radon is already listed among the hazardous materials that state law requires a seller to disclose to the buyer of a single-family home along with other defects of which the seller has actual knowledge before entering into a sales contract. *See* Md. Code Ann., Real Prop. § 10-702 (e) (2) (vii) ("Single family homes; mandatory disclosures"). *See also*, Md. Code Ann., Real Prop. §§ 10-603 (a) (1) (iii) ("Disclosures required for unwarranted homes") and 10-604 (b) (2) (i) ("New home warranty provisions"). However, state law does not place upon the seller an affirmative duty to discover the extent to which radon may be present in a single-family home before executing a contract of sale for that home. Bill 35-15 seeks to remedy that by ensuring that if high levels of radon are present in a single-family home, a purchaser will always be informed about it before the sales contract is signed and also have some idea of how expensive it

Lisa Feldt
July 7, 2015
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will be to attenuate the problem.

Having reviewed Bill 31-15, I find that the legislation, as introduced, appears legally sound and does not conflict with any provisions under state law that also impose disclosure requirements upon sellers of single-family homes. There are no specific substantive changes that I recommend. However, the one editorial change I would suggest is that "of the cost" be inserted after "contractor" at line 16. If you have any questions or concerns regarding this memorandum, please call me at (240) 777-6759.

cc: Bonnie Kirkland, Office of the County Executive
Marc P. Hansen, County Attorney
Robert H. Drummer, Senior Legislative Attorney

BILL 31-15



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ROCKVILLE, MARYLAND

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RECEIVED
MONTGOMERY COUNTY
COUNCIL

MEMORANDUM

July 10, 2015

TO: George Leventhal, President, County Council

FROM: *J. Hughes* Jennifer A. Hughes, Director, Office of Management and Budget
Joseph F. Beach, Director, Department of Finance *J. Beach*

SUBJECT: FEIS for Bill 31-15, Sale of Real Property - Radon Test - Single-family home

Please find attached the fiscal and economic impact statements for the above-referenced legislation.

JAH:fz

cc: Bonnie Kirkland, Assistant Chief Administrative Officer
Lisa Austin, Offices of the County Executive
Joy Nurmi, Special Assistant to the County Executive
Patrick Lacefield, Director, Public Information Office
Joseph F. Beach, Director, Department of Finance
Lisa Feldt, Director, Department of Environmental Protection
David Platt, Department of Finance
Elyse Greenwald, Office of Management and Budget
Alex Espinosa, Office of Management and Budget

Fiscal Impact Statement
Council Bill 31-15, Sale of Real Property –
Radon Test – Single-family Home

1. Legislative Summary.

Bill 31-15 would require the seller of a single-family home to test for radon and give the buyer a copy of the radon test results. It would also require the seller to provide the buyer with an estimate to reduce radon under certain circumstances.

2. An estimate of changes in County revenues and expenditures regardless of whether the revenues or expenditures are assumed in the recommended or approved budget. Includes source of information, assumptions, and methodologies used.

Bill 31-15 would have no fiscal impact on the County.

3. Revenue and expenditure estimates covering at least the next 6 fiscal years.

Bill 31-15 would have no fiscal impact on the County.

4. An actuarial analysis through the entire amortization period for each bill that would affect retiree pension or group insurance costs.

This is not applicable to this Bill.

5. An estimate of expenditures related to County's information technology (IT) systems, including Enterprise Resource Planning (ERP) systems.

This is not applicable to this Bill.

6. Later actions that may affect future revenue and expenditures if the bill authorizes future spending.

This is not applicable to this Bill.

7. An estimate of the staff time needed to implement the bill.

Implementation of this Bill will require minimal staff time and can occur with DEP's existing staffing complement.

8. An explanation of how the addition of new staff responsibilities would affect other duties.

The additional responsibilities will not affect other pre-existing duties.

9. An estimate of costs when an additional appropriation is needed.

No additional appropriation is needed.

10. A description of any variable that could affect revenue and cost estimates.

This is not applicable to this Bill.

11. Ranges of revenue or expenditures that are uncertain or difficult to project.

This is not applicable to this Bill.

12. If a bill is likely to have no fiscal impact, why that is the case.

This bill does not have a fiscal impact because no additional staff are required to implement the legislation. The bill requires the seller to utilize a test kit "approved for use by the [DEP] Director." DEP does not have a certification program for radon test devices. However, two non-profit industry organizations that certify radon professionals also provide certification lists for testing devices. These lists are on-line and DEP would refer individuals to these lists. Therefore, there would be no cost of this requirement.

13. Other fiscal impacts or comments.

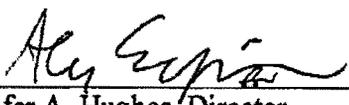
This is not applicable to this Bill.

14. The following contributed to and concurred with this analysis:

Stan Edwards, Department of Environmental Protection

Alex Espinosa, Office of Management and Budget

Elyse Greenwald, Office of Management and Budget



Jennifer A. Hughes, Director
Office of Management and Budget

7/10/2015

Date

Economic Impact Statement
Bill 31-15, Sale of Real Property – Radon Test – Single-Family Home

Background:

This legislation would require the seller of a single-family home to test for radon and provide the buyer with a copy of the test results. Bill 31-15 defines a single-family home as either a single-family detached or an attached residential building. Bill 31-15 also requires the seller to provide the buyer with a cost estimate from a licensed contractor to reduce any radon level of four (4) picocuries per liter or more to less than two (2) picocuries per liter. For purposes of this economic impact statement remediation and mitigation refer to the same process.

1. The sources of information, assumptions, and methodologies used.

Sources of information include:

- Montgomery County Department of Environmental Protection (DEP),
- U.S. Environmental Protection Agency (EPA),
- Metropolitan Regional Information System, Inc. (MRIS),
- Greater Capital Area Association of Realtors (GCAAR),
- National Radon Program Services (Kansas State University), and
- National Radon Proficiency Program (NRPP: www.nrpp.info/mitigation)

DEP provided information on the cost of radon test kits and the cost from a certified contractor. For the cost of the test kits, DEP's website provides a referral to the National Radon Program Services (<http://sosradon.org>). According to that website, the costs of the kit range from \$15.00 for a short-term test of between three and four days to \$25.00 for a long-term test between three and twelve months. Bill 31-15 would require the seller of the home to test for radon and provide the buyer with the results.

DEP noted that a radon remediation contractor will typically provide a free estimate of the cost of installing a radon mitigation system in the home. This estimate is based on the contractor's experience with installing systems, the age of the home, and the characteristics of the structure of the home such as crawl space, concrete slab, and presence of a sump pump. The National Radon Program Services also notes that the cost of a mitigation system varies according to the home's design, size, foundation, construction materials and the local climate. If a radon test shows levels at or above 4 pCi/L, EPA and DEP recommend that a homeowner use a certified radon remediation contractor. According to NRPP, there are approximately twenty-three remediation providers located in Maryland. The National Radon Program Services estimate that radon reduction systems average costs nationally are \$1,200 with a range from \$800 to \$1,500 depending on the characteristics of the home and market conditions. Part of the mitigation cost can depend on the aesthetic value of the home such as whether a retrofit system routed outside the home can reduce radon but may not be visually pleasing compared to the more expensive one routed through the home's interior. In addition, the costs of mitigation would include operating costs that include electricity

Economic Impact Statement
Bill 31-15, Sale of Real Property – Radon Test – Single-Family Home

for a fan and possible additional costs for heating and cooling as a result of some percentage of air being drawn out of the home by the radon system.

According to the MRIS and GCAAR, there are a total of 2,783 active listings of single homes and 604 condominium units on the June market in Montgomery County. The June listings represent an increase of nearly ten percent from last year. There are no data available to determine how many of these units would require a radon test before being sold.

2. A description of any variable that could affect the economic impact estimates.

While data from DEP and National Radon Program Services provide cost estimates for both the testing of radon and remediation, the variables that could affect the economic impact are the number of homes listed for sale that require both a radon test and an estimate of the cost of remediation. As stated previously, the cost of remediation depends on the characteristics of the structure of the home and the additional utility costs of operating the remediation system. While Bill 31-15 requires notification of the presence of radon and a cost estimate to remediate radon in the home, the legislation does not require remediation of radon in the home to an approved level. However, the presence of high levels of radon in a home for sale could cause serious illness. Therefore, Bill 31-15 ensures that all homes for sale are tested for radon and if high levels of radon are present, that could have a deleterious effect on the sale and/or sales price based on the cost of remediation.

3. The Bill's positive or negative effect, if any on employment, spending, savings, investment, incomes, and property values in the County.

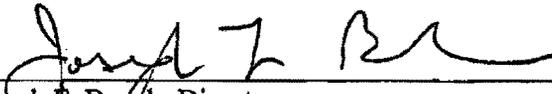
Even without a specific number of homes with the presence of radon and data on the specific costs to remediate existing homes for sale, Finance assumes that there could be a positive economic effect on employment and incomes from remediation companies located in the County. However, it is uncertain whether a home for sale that was treated for radon would have an effect on the buyer's decision to purchase that home or opt for a similar home that never had been remediated for radon. Second, if the home for sale has radon above the standard acceptable level, Finance assumes that cost to remediate would be reflected in the sales prices of the home. Who would bear that cost would be between the buyer and seller in negotiating the sales/purchase price.

4. If a Bill is likely to have no economic impact, why is that the case?

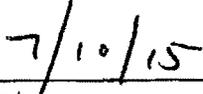
Bill 31-15 could have an economic impact based on the conclusions in paragraph #3

Economic Impact Statement
Bill 31-15, Sale of Real Property – Radon Test – Single-Family Home

5. The following contributed to or concurred with this analysis: David Platt, Mary Casciotti, and Rob Hagedoorn, Finance; Stan Edwards, Department of Environmental Protection.



Joseph F. Beach, Director
Department of Finance



Date

Policy Brief:

State and Local Policies for Preventing Exposure to Radon

Protracted radon exposure causes lung cancer.

Radon-222 (hereafter called radon) is a colorless, odorless, tasteless, radioactive gas, produced naturally in rocks and soil by the decay of uranium-238 and subsequently radium-226. Radon, with a radioactive half-life of about four days, enters homes and other buildings through cracks and penetrations in the building foundation. Radon gas usually exists at lower concentrations outdoors, but radon is typically present at a higher concentration indoors. A high radon gas concentration in a home or workplace increases the risk of radon-related lung cancer. Radon is the number one cause of lung cancer among individuals who have never smoked, and the second leading cause of lung cancer overall.

Radon is one of the most extensively studied environmental carcinogens, and the diversity and consistency of findings provide overwhelming evidence that protracted radon exposure is the leading environmental cause of cancer mortality in the United States:

- The National Academy of Science's National Research Council estimated that 66% of radon-induced lung cancers occur below the U.S. Environmental Protection Agency's (EPA's) radon action level of 4 picocuries per liter (pCi/L) of air (148 Bq/m³).
- EPA estimated, in 1995, that protracted residential radon exposure to 1.3 pCi/L (48 Bq/m³), the U.S. mean residential radon concentration, results in 21,000 radon-related lung cancer deaths each year in the U.S. Additional deaths are likely due to exposures in schools, workplaces, and other non-residential buildings, plus increases since 1995 in population and the number of new homes with high levels of radon that were added to the housing stock. In some states, such as Iowa, test results from over 70% of all measured homes exceed the EPA's radon action level.
- On an annual basis, if considered its own disease category, radon-induced lung cancer would be the eighth leading cause of cancer mortality in the U. S.

The 21,000 annual lung cancer deaths were projected from studies of underground miners exposed to radon. However, recent research has focused on measuring the effect of residential radon exposure on lung cancer risk by comparing radon levels in the homes of people who have lung cancer with radon in homes where no one has developed lung cancer. The findings of these case-control epidemiologic studies, which directly examined the risk of lung cancer in the residential setting, were in close agreement with the projections from miners.

Testing is the only way to know if a person's home has elevated radon levels. Indoor radon levels are affected by the soil composition under and around the home, and the pathways through which radon and other soil gas may enter the home. Homes that are next door to each other can have different indoor radon levels, making a neighbor's test result an imprecise predictor of radon risk. Elevated indoor radon levels can be mitigated by a properly certified professional, and the risk of radon entry can be reduced when a home builder uses up-to-date consensus standards, for radon resistant new construction, approved by the American National Standards Institute (ANSI).

The U.S. EPA and the U.S. Surgeon General recommend taking action to reduce indoor radon levels in homes that have a radon level at or above 4 pCi/L. This action level is not health-based; indeed, there is no known safe level of radon. In 1988, the U.S. Congress set a long-term goal that indoor radon levels be no more than the outdoor level (i.e., 0.4 pCi/L or 15 Bq/m³). The President's Cancer Panel recommended in 2009 that EPA consider lowering the action level, based on current radon-related cancer risk data. While the goal of reducing radon in homes to 0.4 pCi/L or below is not yet technologically achievable, the radon concentrations in most homes today can be reduced to 2 pCi/L or below (74 Bq/m³). The World Health Organization (WHO) has set a recommended radon reference level of 100 Bq/m³ (2.7 pCi/L) for WHO member countries. U.S. implementation of the WHO recommendation would eventually prevent about 5,500 radon-related lung cancer deaths annually.

Data from a nationwide radon study performed by state radon programs and EPA over 25 years ago suggested that 1 in 15 U.S. homes have radon levels at or above EPA's action level. More recent state radon program data indicate that in some states, the proportion of homes exceeding EPA's action level is much greater.

*The evidence that radon kills people through lung cancer is clear.
The solution is prevention. Test and mitigate existing homes, build radon out of new homes.*

Proactive Policies: Every State and Community Can Save Lives

The primary policy levers for preventing radon exposure are radon-resistant new construction, radon testing, disclosure and notification, and radon professional licensing. Each of these policies will contribute to the cause; together they present a winning combination to protect occupants of all homes.

Sample Legislative Intent

The Legislature recognizes that radon is an odorless, colorless, tasteless, and radioactive gas that occurs naturally in soil and groundwater; that radon enters homes and buildings through openings in foundations, decays to form radon progeny, and unless vented to the atmosphere, accumulates in buildings and becomes hazardous to human health. Prolonged exposure to elevated concentrations of radon decay products has been associated with increases in the risk of lung cancer. The Legislature recognizes that there is a need to protect human health and prevent exposure to elevated concentrations of radon and a higher risk of mortality from lung cancer.

Policy: Radon Resistant New Construction (RRNC)

It is possible and practical to build a new home to prevent elevated levels of radon gas, which exists in the ground, from entering the home. In brief, the evidence-based physical interventions that prevent radon entry into the living space are (1) channeling radon from below the ground and foundation into a pipe that exhausts safely to the outdoors and (2) sealing the foundation and other building components so radon can't go around the pipe to enter the home. State laws and

regulations require that builders use radon-resistant construction methods in eight states (IL MA MD MI MN NJ OR WA).

Elements of an RRNC law include:

- **Standard/Methodology.** A state or local government can enact RRNC by changing the building code to require Appendix F of the International Residential Code (IRC), the consensus standard ANSI-AARST CCAH, or both.
- **Performance Assurance Options**
 - **Fan.** Electrical connection rough-in (passive system) or fan installation and activation (active system).
 - **Radon Test.** Test result, provision of a radon test kit, or information to get testing.
- **Geographic Scope.** A state or local policy can cover homes in all areas or focus on counties that have been designated high and moderate risk zones based on average radon data. Since homes in all zones have been found to have high radon levels, two states protect homes in all areas regardless of radon risk designation.
- **Type of Housing Covered.** Three states protect all types of housing; four states limit protection to the types of homes covered by the IRC, which is the only commonly adopted model code that contains a radon policy.

State-Wide RRNC Policies in the US			
State	Housing Type(s)	Radon Risk Zone*	RRNC Standard
IL	All	All	Appendix F amended
MA	One and Two Family	Zone 1	Appendix F and ANSI CCAH
MD	One and Two Family	Zone 1	Appendix F
MI	One and Two Family	Zone 1	Appendix F
MN	One and Two Family	All	Appendix F amended
NJ	All	Zone 1	Similar to Appendix F
OR	One and Two Family; Apartments	Zone 1	Appendix F amended
WA	All	Zone 1	Appendix F

Policy: Testing of Existing Homes

Since radon testing is the only way to determine whether an existing building’s radon level is below the maximum standard - currently 4.0 picocuries/liter (pCi/L) - testing policies are considered definitive homebuyer and renter protections in terms of awareness. Without test results, the household considering moving has no way to know whether occupying this home will increase their family’s risk of lung cancer. Although several states have testing policies for schools (CO CT FL IA MN NJ OH RI VA WA WV), no state has enacted a testing law for homes.

Elements of a testing law include:

- **Testing.** Prior to the sale or rental of a residential property, the property owner shall have the property tested for radon gas -

- According to the ANSI/AARST Protocol for Conducting Radon and Radon Decay Products Measurements in Homes (ANSI/AARST MAH)
 - By a state-licensed or certified radon measurement professional.
- **Disclosure.** The property owner shall provide results of radon testing to the prospective buyer or renter with the contract or lease. Test results shall be no older than a year preceding the date of the contract or lease.
- **Radon Awareness.** The property owner shall provide information with the contract or lease about the risks of radon to the prospective buyer or renter through a radon warning statement and a publication such as EPA's Homebuyers' and Sellers' Guide <http://www.epa.gov/radon/pubs/hmbyguid.html>
- **Mitigation and Mitigation Estimate/ Sale Termination Option.** If the test of a home for sale reveals that radon is present indoors at a level in excess of 4.0 (pCi/L) picocuries per liter of air, the property owner shall either (1) mitigate, repair, or alter the premises to reduce the radon level to below 2.0 pCi/L, or (2) provide the purchaser with an estimate of the cost of mitigation and permit the prospective buyer to terminate the sale agreement without loss of any earnest money or down payment.
- **Mitigation or Rental Termination Option.** If the test of a home for rent reveals that radon is present indoors at a level in excess of 4.0 (pCi/L) picocuries per liter of air, the property owner shall mitigate, repair, or alter the premises to reduce the radon level to below 2.0 pCi/L or permit the prospective renter to terminate the rental agreement without loss of any security deposit, advance rent, or application fee.
- **Real Estate Agent.** The property owner may convey the disclosure, radon awareness information, and mitigation/termination option through a real estate agent representing or assisting the prospective buyer or renter so long as the real estate agent provides a copy to the prospective buyer or renter.
- **Current Leases:** The owner of a currently occupied rental property shall have the property tested for radon gas and provide the results of radon testing to the renter. If the test reveals that radon is present indoors at a level in excess of 4.0 (pCi/L) picocuries per liter of air, the property owner shall either mitigate or permit the renter to terminate the rental agreement without loss of any security deposit or any other financial penalty.

Policy: Disclosure and Radon Awareness

Many people purchase a home without knowing about radon or if high levels of radon exist in the home. A homebuyer or renter needs complete information about radon in order to make an informed decision. Where a testing requirement (above) is not feasible, required disclosure of property-specific radon information and provision of radon awareness will ensure that all prospective buyers and renters have a minimal knowledge base to protect their families. Since their inception five or more years ago, radon awareness policies in two states (IL MN) have increased risk reduction without impeding home sales.

Elements of a disclosure/awareness law include:

- **Disclosure.** Prior to the sale or rental of a residential property, the property owner shall disclose in writing to the buyer or renter any knowledge of radon gas such as:
 - whether radon testing has occurred and current records pertaining to radon concentrations
 - a description of any radon concentrations, mitigation, or remediation

- information regarding the radon mitigation system, including system description and documentation, if such system has been installed in the dwelling
- **Radon Awareness.** The property owner shall provide a radon warning statement (sample below) and other information about the risks of radon to the prospective buyer or renter.

Sample Radon Warning Statement

The *(title of department or commissioner)* of *(state or locality)* strongly recommends that ALL homebuyers have an indoor radon test performed prior to purchase or taking occupancy, and recommends having the radon levels mitigated if elevated radon concentrations are found. Elevated radon concentrations can easily be reduced by a qualified, certified, or licensed, if applicable, radon mitigator.

Every buyer of any interest in residential real property is notified that the property may present exposure to dangerous levels of indoor radon gas that may place the occupants at risk of developing radon-induced lung cancer. Radon, a Class A human carcinogen, is the leading cause of lung cancer in nonsmokers and the second leading cause overall. The seller of any interest in residential real property is required to provide the buyer with any information on radon test results of the dwelling.

- **Transaction Types.** The disclosure requirements shall apply to the transfer of any interest in residential real estate, whether by sale, exchange, deed, contract for deed, lease, lease with an option to purchase, or any other option.
- **Real Estate Agent.** The property owner may convey the disclosure and radon awareness information through a real estate agent representing or assisting the prospective buyer or renter so long as the real estate agent provides a copy to the prospective buyer.

Policy: Professional Licensure

In order to provide accurate and consistent results from testing and deliver effective mitigation that reduces radon levels, evidence-based standards and a cadre of trained certified professionals have emerged over the past decades. Radon exposure is a complex building problem that demands personnel who are appropriately trained and following recognized standards: horror stories (with photos) of costly ineffective systems abound. There is no federal program regulating radon services, but states and private national certification protect the public. Around 20 states have certification requirements for personnel doing radon testing and mitigation work. While a few operate in-state programs, other states require that radon work be performed by persons who have earned recognition from a national recognized certification program that has ongoing requirements for at least biennial recertification.

Elements of a radon licensing law include:

- **State Radon Program Authorization.** The program shall administer certifications, collect fees, receive federal and state funds, and have necessary staff and equipment.
- **Licensing.** The state radon program shall establish and implement criteria, based on standards and ethical requirements promulgated by the US EPA, the American National Standards Institute (ANSI), and an ANSI national standards accredited developer, for mandatory licensure and certification of persons involved in the following services pertaining to radon:
 - Screening sampling/testing of air or water,
 - Diagnostic sampling/testing of air or water,
 - Mitigation and mitigation planning services, and
 - Training courses to meet the licensing and certification requirements.

- **Certification and Standards Requirement:** To provide radon services, a person shall be licensed by the state radon program or certified by the National Radon Proficiency Program, or an EPA-recognized accrediting organization, and must adhere to recognized consensus standards.
- **Testing.** The program shall promote a radon/radon progeny testing program.
- **Public Information.** The program shall provide information over the phone, in-person and in writing regarding radon/radon progeny health effects, the necessity for testing buildings, recommended practices for reducing elevated levels of radon, availability of certified personnel, and related issues.

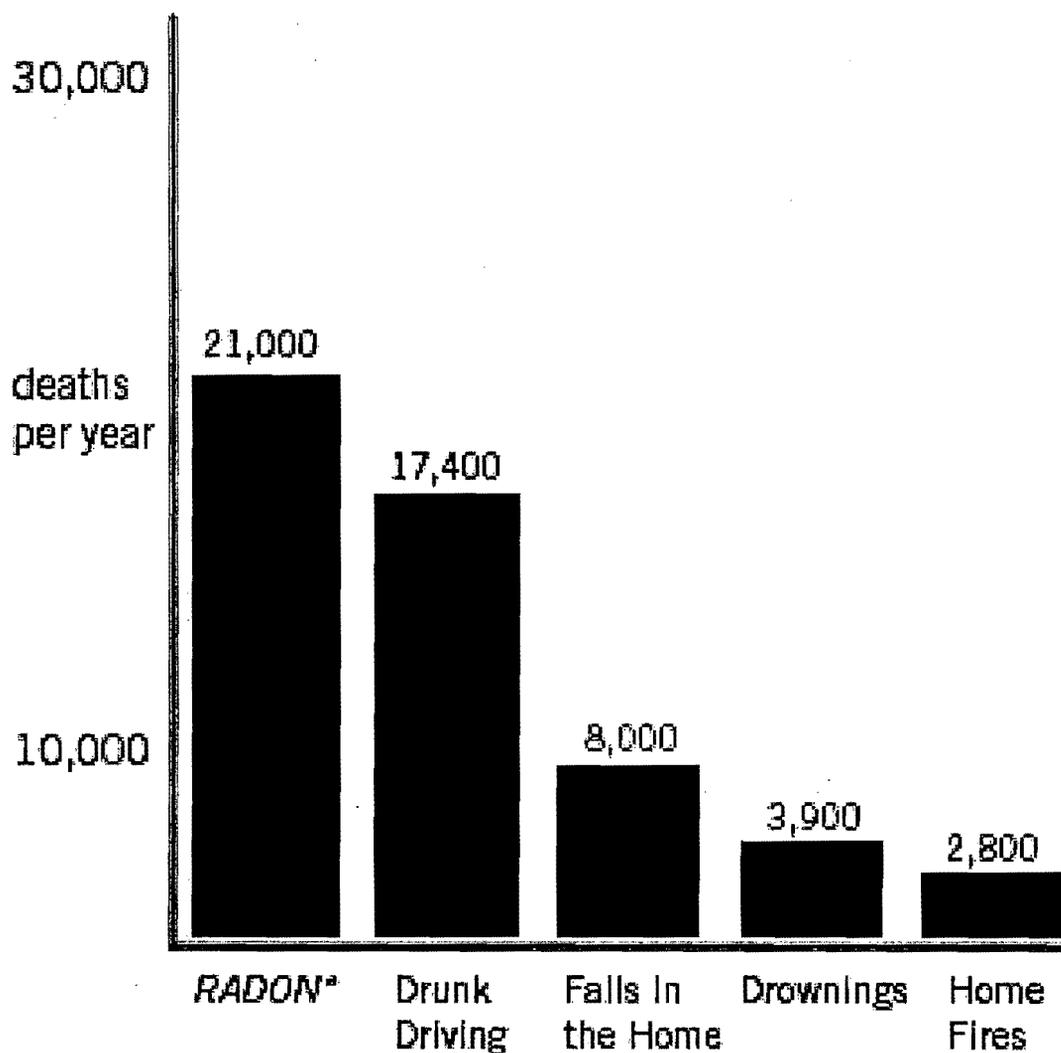
Getting Started, or Needing Help with a Hot Radon Policy Question?

The AARST community is available to help. Please contact Jane Malone jmalone@aarst.org so we can learn what you're considering. AARST can provide legislative language, technical advice, and connections to AARST chapters and other allies.

The American Association of Radon Scientists and Professionals is a nonprofit, professional organization of members who are dedicated to the highest standard of excellence and ethical performance of radon measurement, radon mitigation and transfer of radon information for the benefit of members, consumers and the public at large.

Radon is estimated to cause thousands of lung cancer deaths in the U.S. each year

(Information Provided By: US Environmental Protection Agency)



- The numbers of deaths from other causes are taken from the Centers of Disease Control and Prevention's 2005-2006 National Center for Injury Prevention and Control Report and 2006 National Safety Council Reports.



July 21, 2015

County Council President George Leventhal
100 Maryland Avenue
Rockville, MD 20850

Re: Bill 31-15, "Sale of Real Property – Radon Test – Single-family home"

Dear Council President Leventhal and members of the Council:

I am writing to you on behalf of the Greater Capital Area Association of REALTORS® ("GCAAR") – the voice of Montgomery County and the District of Columbia's more than 8,500 REALTORS®, property managers, title attorneys and other real estate professionals. On behalf of GCAAR, I would like to voice our concerns and opposition for Bill 31-15, "*Sale of Real Property – Radon Test – Single-family home*," as it is currently drafted.

GCAAR fully understands the importance of ensuring Montgomery County homes and communities are safe from hazards. Our members go to great lengths to include comprehensive disclosure statements in our standard property sale contracts based not only on existing law, but also best practices. Inclusive disclosures are actually preferred to encourage sellers to be forthcoming about their properties' conditions, such as environmental hazards.

On the other hand, disclosure and mandatory testing requirements, which have not been thoroughly vetted, lead to confusion in the housing market and costly litigation. GCAAR currently has a "**Radon Testing Notice and/or Addendum/Release**" form (see attached GCAAR Form 1363) that is used by many of our members when they are listing properties. It is not a required form but it has become common practice for many to automatically include it in all listing agreements so that the buyers can understand if there is a presence of radon or to gain more understanding about radon through a link provided to the EPA on radon. We would strongly recommend that this remain a "recommended" form and not a mandatory form.

While we understand the possible need to disclose the presence of known radon or the results of any testing that has been conducted, to require mandatory testing at the time of sale, we do not believe is practical and in fact might complicate the transaction further. There is already a lot of confusion amongst buyers as to what radon even is, how to remediate it and who to even call. Therefore, we actually feel it would be more prudent to require an educational disclosure of information tied in with the current GCAAR Form 1363 that would help buyers make a more educated decision and then leave the negotiation up to the buyer and seller in the private real estate transaction whether a radon test and remediation should be done. GCAAR has also already met a few months back with the County Executive's Energy and Air Quality Advisory Committee about radon and strongly recommended we work together to provide educational disclosures instead of mandatory testing.

If the goal is to educate and inform residents of the risks associated with possible radon exposure, increased education requirements and visibility of information on radon are just a couple ways to achieve this. This way, they can independently assess the risks associated with radon presence or exposure. We would be glad to work with the Council on incorporating a disclosure of known radon and also facilitate the incorporation of an educational pamphlet or links to more information from the EPA as opposed to mandating testing, where test results may not be accurate.

While we believe that this bill has a lot of merit and radon is something that should be taken seriously, the real estate transaction is already a very difficult and complicated process today. The laws relating to sale and lease of a property are VERY distinct. Having another testing and disclosure form can lead to disorderly and complicated transactions.

Finally, we are concerned that there are not enough "certified radon testers" in the DC metro area that can properly conduct a real accurate radon test. It is also our understanding that the radon test kits do not give accurate readings and therefore could be misleading. Currently, when a buyer asks for a radon test, per the current GCAAR addendum, our members recommend that they use a "Certified Radon Inspector." So in turn, they get a full and accurate reading and can decide what if anything must be remediated.

Overall, we commend your efforts to make homes healthier. We also appreciate Councilmember Rice reaching out to GCAAR so that we can have an open discussion about current practices and ways to improve them. Nonetheless, if the goal is to raise awareness in Montgomery County that radon may be a serious problem in the home, we would argue that the best practice is education not mandated testing right now.

GCAAR is pleased to continue working with Councilmembers and staff to improve upon Bill 31-15 and thank you for consideration of our views.

Sincerely,

Meredith R. Weisel, Esq.
GCAAR Government Relations Consultant



Radon Testing Notice and/or Addendum/Release
(For use in Montgomery County, MD and the District of Columbia)

REGARDING the Contract dated the _____ on Lot _____, Block/Square _____, Unit _____ in the subdivision/condominium project known as _____, located at _____ (Property) between _____ (Buyer) and _____ (Seller): In

the event this Notice becomes an Addendum, the provisions of this Addendum shall supersede anything to the contrary contained elsewhere in the Contract. To learn more about the potential effects of radon and remediation visit the EPA's website at www.epa.gov/radon.

The undersigned Buyer hereby provides a copy of the radon testing report which confirms the presence of radon that equals or exceeds the action level established by the EPA and (must select either A or B):

- A. Agrees to remove the Radon Inspection Contingency in exchange for either 1 or 2:
1. Seller's agreement to remediate the radon condition at Seller's expense prior to settlement by contracting with an NRSB or NEHA listed remediation firm and to provide Buyer written verification that the required remediation has been performed (which shall include test results following such remediation demonstrating that the presence of radon is below the action level established by the EPA).

OR

2. Seller's agreement to provide a credit towards Buyer's closing costs in the amount of \$ _____.

It is the Buyer's responsibility to confirm with his lender, if applicable, that the entire credit provided for herein may be utilized. If lender prohibits Seller from payment of any portion of this credit, then said credit shall be reduced to the amount allowed by lender. This credit shall be in addition to any other amount(s) Seller has agreed to pay under other provisions of this Contract.

Buyer understands that radon gas has the potential to cause serious health problems. Buyer acknowledges and agrees that in exchange for Seller providing a credit, **Buyer is solely responsible for any radon remediation and assumes any associated health risks caused by radon in or around the Property.** Further, Buyer does hereby release, indemnify, hold harmless and forever discharge Seller, as owner of the Property and separately, the real estate broker, and its officers, employees, agents, successors and assigns, from any and all claims, liabilities, or causes of action of any kind that Buyer may now have, or at any time in the future may have, resulting from the presence of radon in, on or around the Property.

- B. Declares this Contract void (only if permitted by the Radon Inspection Contingency).

The Radon Inspection Contingency provides that failure of any party to respond within 3 Days after Delivery of Notice requiring remediation and/or a credit towards closing costs (as provided in paragraphs 1 and/or 2 above) will result in acceptance by both parties of the terms of the most recent Notice.

 Seller Date Buyer Date

 Seller Date Buyer Date

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 Previous editions of this Form should be destroyed.

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Rice and Katz Amendment 1

Amend lines 14-19 as follows:

- (b) Before [[signing a contract for]] completing the sale of a single-family home located in the County, the living quarters of the home must be tested for radon. The radon test must be performed less than one year before final settlement. The seller must either perform the test or permit [[provide]] the buyer to perform the test. [[with]] Both the seller and the buyer must receive[[:
- (1)]] a copy of the results of [[a]] the radon test [[performed on the living quarters of the home less than one year before the date of the contract; and
- (2) an estimate from a licensed contractor to reduce any radon level of 4 picocuries per liter or more to less than 2 picocuries per liter]].

Drummer, Bob

From: Edwards, Stan
Sent: Wednesday, October 14, 2015 4:01 PM
To: St. Pierre, Sharon
Cc: Feldt, Lisa; Morris, Kimberly D.; Kirkland, Bonnie; Drummer, Bob
Subject: Radon Testing & Remediation Information
Attachments: Regional Sales Contract.pdf; MD Residential Property Disclosure & Disclaimer Statement.pdf; Buyer Checklist for Montgomery County.pdf; Radon Testing Notice & Addendum or Release (Form 1363).pdf

Sharon,

As we discussed, here is some information on radon testing and remediation.

- DEP provides information on radon testing and mitigation at <https://www.montgomerycountymd.gov/DEP/air/radon.html#managing>.
- We advise that radon testing devices are available from hardware and home improvement stores, and also provide a link at <http://sosradon.org/test-kits> to the National Radon Program Services (NRPS) website. NRPS, run by Kansas State University under contract from the U.S. Environmental Protection Agency, provides a variety of information and resources on radon testing and mitigation.
- The NRPS website has an explanation of the different types of test devices at <http://sosradon.org/devices#why-short-and-long-term-tests>. The testing devices that most people are familiar with are short-term (3-4 days) charcoal canisters or charcoal liquid scintillation detectors, and long-term (3-12 months) alpha trackers. These "passive" test devices can be purchased from NRPS for \$15 and \$25, respectively, which includes the cost of getting results back from the testing laboratory. A radon professional that conducts a test may use an "active" testing device such as a continuous monitor. Some of these devices can provide data on the range of variation within the test period. However, these devices usually require operation by trained testers, and thus testing with active devices can cost more than passive testing.
- The NRPS website contains a lot of information on mitigation at <http://sosradon.org/Mitigation>. The cost of mitigation may vary depending on the size and design of a home and which radon reduction methods are needed. According to NRPS, the average cost for a contractor to lower radon levels in a home is about \$1,200, although this can range from \$500 to about \$2,500. As with any home improvement activity, there are always "outlier" situations that can fall outside the range of average costs.
- Details on the type of mitigation that may be required in different house types can be found at <http://sosradon.org/Mitigation-details-101>. The general goal of all radon mitigation systems is to prevent gas from the soil that contains radon from entering the house. This is achieved by a combination of sealing cracks and voids in a building foundation that may allow for gas infiltration, and creating a vacuum in a permeable layer beneath the living area of a house and venting the collected gas outside the house.
- Since 1995, Montgomery County has required the installation of passive radon "infrastructure" in new single family homes. These requirements can be found in Appendix F of the International Residential Code (IRC). The contents of Appendix F of the 2012 version of the IRC can be found at http://publicecodes.cyberregs.com/icod/irc/2012/icod_irc_2012_appf_sec001.htm. As described in the code, the intent of Appendix F is to require construction techniques designed to resist radon entry and, if necessary, prepare the building for post-construction radon mitigation (i.e., the installation of an active fan system).

GCAAR provided me with various forms that are used during a residential real estate transaction that mention radon. Based on my understanding of these forms, I think they can help a knowledgeable buyer address radon as part of the purchase of a home, but don't compel a seller to provide radon information to a buyer unless they are aware of a problem or unless the buyer asks. I do believe that GCAAR is correct when they assert that "most" transactions involve radon testing, but I have not seen data on this. Here is a rundown of the forms (which are attached):

- Regional Sales Contract – Item 24A on page 6 notes that radon may be an issue “which the parties may investigate further.” It further notes that this disclosure does not create a contingency, and that any contingency must be specified by adding appropriate terms to the contract.
- Maryland Residential Property Disclosure and Disclaimer Statement – Item 14 on page 3 requires the seller to disclose any knowledge of “hazardous or regulated materials (including, but not limited to, licensed landfills, asbestos, radon gas, lead-based paint, underground storage tanks, or other contamination) on the property” or sign a disclaimer stating that the property will be sold “as is” and may include some latent defects.
- Buyer Checklist for Montgomery County – Includes a reference under the *Post-Ratification* section on page 3 to the Radon Testing Notice and/or Addendum/Release if the buyer has a radon contingency in the proposed transaction.
- Radon Testing Notice and/or Addendum/Release – This document releases any contingency, or voids the contract (if permitted by the radon inspection contingency).

Please let me know if you have any questions about any of this.

Stan Edwards
Division of Environmental Policy & Compliance
Department of Environmental Protection
Montgomery County, MD
240-777-7748