

SECTION ONE

RADON



1. Is the presence of radon a material fact in North Carolina? _____
2. Which of the following provide(s) reliable evidence of an elevated radon level? (Select all that apply.)
 - a. Presence of stone on the property
 - b. Topography and soil composition
 - c. Strong odor that is unique to radon
 - d. Proximity to another home with an elevated radon level
 - e. Radon test performed by a home inspector or radon inspector or homeowner
3. You are representing a buyer who is moving to North Carolina from another state. Your buyer asks that a radon test be performed as part of the home inspection. According to the test results, the home has a radon level of 4.2 pico curies per liter [hereinafter “pCi/L”]. What are your buyer’s options? _____

4. You are acting as a dual agent in a transaction. During the due diligence phase, the radon test reveals a radon level of 3.2 pCi/L, and the buyer decides to terminate the contract as a result. Are you required to disclose the radon test result to all future buyers? _____
5. If a seller knows that the house has been tested for radon and the test revealed that the house has a level equal to or exceeding 4.0 pCi/L, must the seller disclose the fact to prospective buyers? _____

Learning Objectives

Upon completing this Section, you should be able to:

- describe radon and its risks;
- explain when the presence of radon OR a radon mitigation system is a material fact; and
- explain how a high level of radon may be corrected.

What is Radon?

Radon is a naturally occurring colorless, odorless, radioactive gas found in most soils and rock. It is caused by the normal decomposition of uranium, releasing radium atoms that emit alpha particles into the air we breathe. It is everywhere; no state is exempt. Outdoors, the concentration is so nominal that its impact on human health is negligible. However, in confined quarters, high levels of radon can be problematic. When we breathe, we inhale the radioactive alpha particles that can then lodge in our lungs.

How Dangerous is Radon?

Radon is the number one cause of lung cancer among non-smokers in the United States, according to Environmental Protection Agency (EPA) estimates. Overall, radon is the second leading cause of lung cancer. Radon is responsible for about 21,000 lung cancer deaths nationally every year. About 2,900 of these deaths occur among people who have never smoked. (Read more at <https://www.epa.gov/radon/health-risk-radon>.)

The table below indicates the risk of lung cancer from radon compared to the likelihood of death from other causes for people who have never smoked versus those who are or were smokers. The information presented merges two separate tables that may be found on the EPA's website and in the *Home Buyer's and Seller's Guide to Radon*, p. 18. [EPA 402/K-13/002, September 2013 (revised).]

Radon Risk for Non-Smokers and Current/Former Smokers

Radon Level	If 1,000 people who never smoked were exposed to this level over a lifetime*	If 1,000 people who smoked were exposed to this level over a lifetime*	The risk of cancer from radon exposure compares to**
20 pCi/L	About 36 people could get lung cancer	About 260 people could get lung cancer	Nonsmoker: 35 times risk of drowning Smoker: 250 times risk of drowning
10 pCi/L	About 18 people could get lung cancer	About 150 people could get lung cancer	Nonsmoker: 20 times risk of dying in a home fire Smoker: 200 times the risk of dying in a home fire
8 pCi/L	About 15 people could get lung cancer	About 120 people could get lung cancer	Nonsmoker: 4 times the risk of dying in a fall Smoker: 30 times the risk of dying in a fall
4 pCi/L	About 7 people could get lung cancer	About 62 people could get lung cancer	Nonsmoker: The risk of dying in a car crash Smoker: 5 times the risk of dying in a car crash
2 pCi/L	About 4 people could get lung cancer	About 32 people could get lung cancer	Nonsmoker: The risk of dying from poison Smoker: 6 times the risk of dying from poison
1.3 pCi/L	About 2 people could get lung cancer	About 20 people could get lung cancer	(Average indoor radon level.)
0.4 pCi/L		About 3 people could get lung cancer	(Average outdoor radon level.)

* Lifetime risk of lung cancer deaths from EPA *Assessment of Risks from Radon in Homes* .

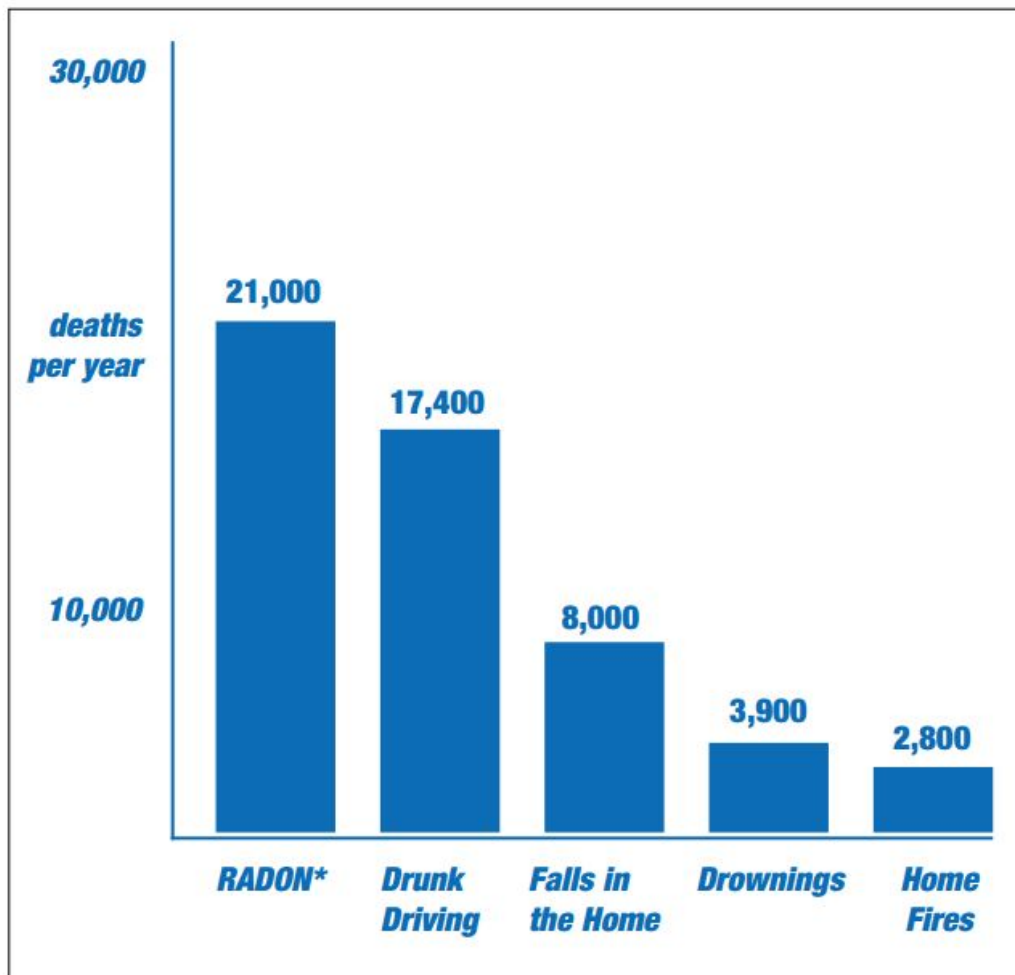
** Comparison data calculated using the Centers for Disease Control and Prevention's 1999-2001 National Center for Injury Prevention and Control Reports.

Estimated Lung Cancer Deaths per Year

Radon is recognized as a known lung carcinogen by the:

- Environmental Protection Agency (EPA),
- World Health Organization (WHO),
- National Academy of Sciences (NAS),
- Center for Disease Control (CDC), and
- US Department of Health and Human Services (DHHS).

The comparison graph below may be found on the EPA's website.



**Radon is estimated to cause about 21,000 lung cancer deaths per year, according to EPA's 2003 Assessment of Risks from Radon in Homes (EPA 402-R-03-003). The numbers of deaths from other causes are taken from the Centers for Disease Control and Prevention's 2005-2006 National Center for Injury Prevention and Control Report and 2006 National Safety Council Reports.*

Courtesy of <https://www.epa.gov/sites/production/files/2015-05/documents/hmbuygud.pdf>.



This exercise is based on “*Radon Myths and Facts*,” from the brochure, *Home Buyer’s and Seller’s Guide to Radon*, pages 27-28. [Publication: EPA 402/K-13/002, revised September 2013, available on the EPA’s website.]

1. **True or False?** Radon testing devices are not reliable and are difficult to find.
2. **True or False?** Radon testing is difficult and time-consuming.
3. **True or False?** Homes with high radon levels can be fixed.
4. **True or False?** Radon only affects certain types of homes.
5. **True or False?** Radon is only a problem in certain parts of North Carolina.
6. **True or False?** A neighbor’s test result is a good indication of whether your home has a radon problem.
7. **True or False?** Everyone should test their water for radon.
8. **True or False?** I have lived in my home for so long it does not make sense to take action now.
9. **True or False?** Short term tests can be used to make a decision about whether to reduce the home’s high radon levels.

EPA Recommended Action Level: 4.0 pCi/L

To reduce the risk of lung cancer, the EPA has set a recommended "action level" for homes with radon levels of 4.0 pCi/L of air or higher.

What is a "picocurie" (pCi)?

A pCi is a measure of the rate of radioactive decay of radon. One pCi is one trillionth of a Curie, 0.037 disintegrations per second, or 2.22 disintegrations per minute.

Therefore, at 4.0 pCi/L, there will be approximately 12,672 radioactive disintegrations in one liter of air during a 24-hour period. (Courtesy of <https://sosradon.org/Radon%20Basics>.)

The EPA strongly urges mitigation if interior readings equal or exceed 4.0 pCi/L and further recommends reduction measures if radon readings are between 2.0-4.0 pCi/L.

Nationally: 1 in 15 homes are estimated to be at or above 4.0 pCi/L.

Per the EPA’s *Report on the Environment* (<https://cfpub.epa.gov/roe/>):

The number of American homes at or above 4.0 pCi/L was estimated by applying the results of the Radon Survey (U.S. EPA, 1992a) to 2000 U.S. Census data on the number of U.S. households. The 1992 National Residential Radon Survey was based on the housing stock that would be covered by EPA's radon testing policy (i.e., homes that should test). This included only homes intended for regular (year-round) use and covers single-family homes, mobile homes on permanent foundations, and multi-unit and group quarters (U.S. EPA, 1992b).

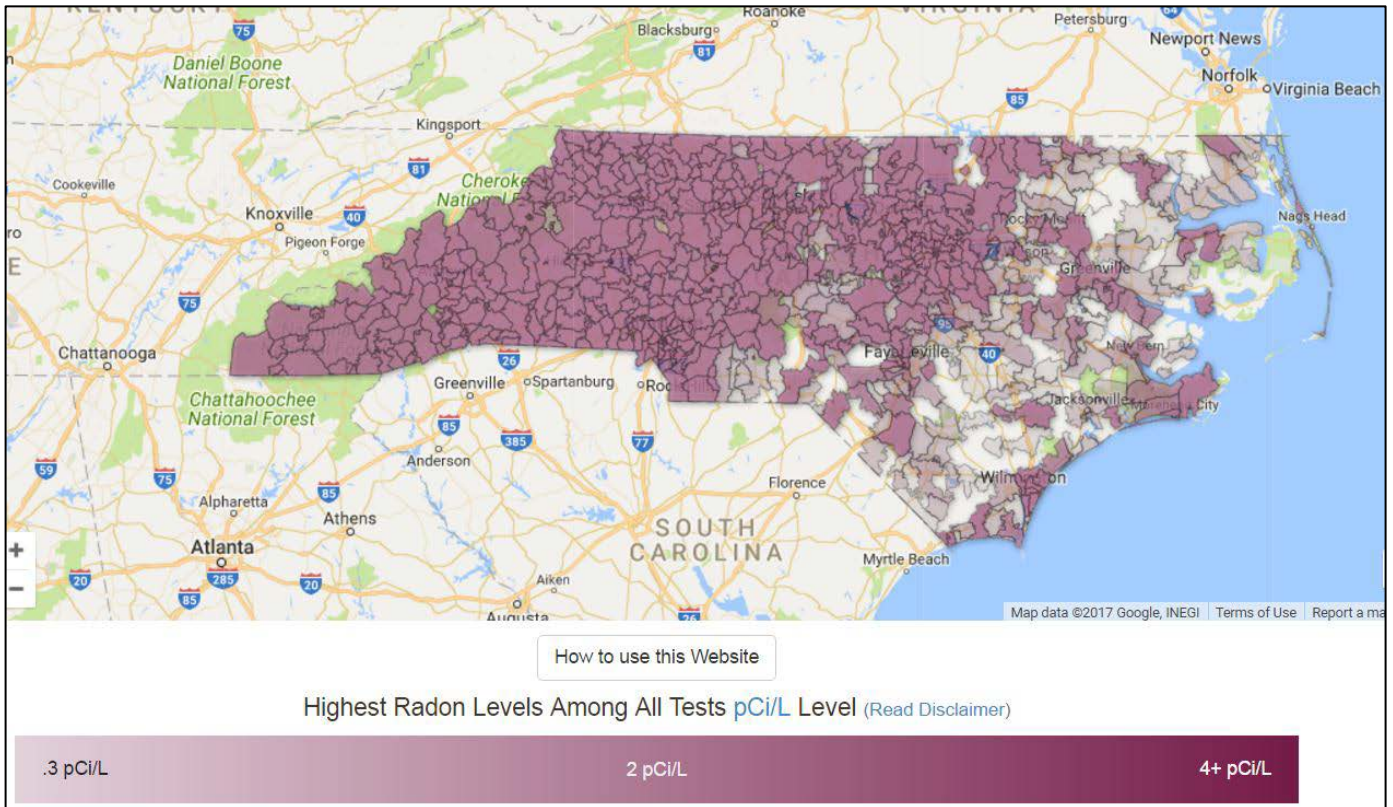
The 1992 residential survey estimated that about one in 15 homes in EPA's "should test" category would have a radon level of 4.0 pCi/L or more. The measure of the number of homes

with operating mitigation systems was developed from radon vent fan sales data provided voluntarily by fan manufacturers (U.S. EPA, 2014).

Are Radon Levels High in North Carolina?

YES. North Carolina is one of 28 states classified by the EPA as having “exceptionally high” levels of radon, i.e., at or above 4.0 pCi/L. The map below is colored/shaded according to the legend below to reflect the radon levels by North Carolina county.

NC Radon Map



Courtesy of <http://www.ncradon.org/ncradon/#>.

In North Carolina, a Radon Level Equal To or Exceeding 4.0 pCi/L is a Material Fact

Disclosure by Owner/Seller: Residential Property and Owners Association Disclosure Statement

In North Carolina, the *Residential Property and Owners Association Disclosure Statement (RPOADS)* is a disclosure form that most owners selling residential property in North Carolina must complete and provide to prospective buyers.

Question 25 on the *RPOADS* asks:

Are there any hazardous or toxic substances, materials, or products (such as asbestos, formaldehyde, radon gas, methane gas, lead-based paint) which exceed government safety standards, any debris (whether buried or covered) or underground storage tanks, or any environmentally hazardous conditions (such as contaminated soil or water, or other environmental contamination) which affect the property?

As with all questions on the *RPOADS*, the seller may answer:

Yes, indicating the seller has knowledge of a problem;
No, indicating the seller has no actual knowledge of any problem; or
No Representation, indicating the seller chooses not to disclose the conditions or characteristics of the property, even if the seller has actual knowledge of them or should have known of them.

Disclosure by Broker

Of course, a broker is *always* required to disclose material facts, regardless of how a seller chooses to complete the *RPOADS*. Consequently, if a broker knows – or reasonably should have known – that a property’s radon level meets or exceeds 4.0 pCi/L, the broker must disclose that fact to all clients and third parties to the transaction.

NOTE: Broker disclosure requirements apply in sales AND lease transactions. Thus, if a broker engaging in property management knows – or reasonably should have known – that a property’s radon level meets or exceeds 4.0 pCi/L, the broker must disclose that fact to all tenants and prospective tenants.



1. How would a broker know that a property's radon level meets or exceeds 4.0 pCi/L?

2. If a broker knows that a property's radon level meets or exceeds 4.0 pCi/L, how might the broker disclose the information to clients and customers? _____

3. Should brokers recommend that buyers have radon tests performed? Why or why not? _____

How is Radon Detected?

Measurement Tools: Passive & Active Detectors

Testing devices may be either passive, needing no power to function, or active, requiring power to operate.

- **Passive devices** include charcoal canisters, alpha-track detectors, charcoal liquid scintillation devices, and electret ion detectors.
- **Active radon detectors** include continuous radon monitors (CRM) and continuous working level monitors. Active devices provide the most complete information as they:
 - 1) record radon levels at various time intervals;
 - 2) track variations in radon concentrations;
 - 3) may reveal tampering; and
 - 4) provide results on-site.

An active detector is a more expensive test, requires power to operate, and must be regularly and properly calibrated. Passive devices, whether short-term or long-term test kits, may be purchased fairly inexpensively at various home supply or hardware stores or ordered on the NC Radon Program's website at http://ncradon.org/Purchase_a_kit.html. The NC Radon Program is an outreach effort of the NC Radiation Protection Section within the Department of Health and Human Services. The Radon Program is involved in public information, residential, and school monitoring projects, and provides technical advisory services to other State and county agencies involved with radon gas.

Who Performs Radon Testing?

Individuals may purchase “do-it-yourself” test kits, follow the directions regarding how to perform the tests, and then mail or deliver kits to the indicated address for analysis.

Alternatively, a certified professional may be hired to conduct the test or a prospective buyer’s home inspector might conduct a radon test as part of the home inspection, even though the home inspector may not be certified as a radon tester.

Few states regulate, license, or even require registration by radon testers or mitigators with any supervisory agency. However there are three (3) independent organizations that issue radon testing and mitigation certifications to individuals who successfully complete the prescribed course of study. These independent organizations are the:

- 1) National Radon Safety Board (NRSB);
- 2) National Radon Proficiency Program (NRPP), and
- 3) Inspector Nation.

There is no North Carolina regulatory agency that oversees radon testing or mitigation, nor does North Carolina require individuals to be certified, although consumers are advised to hire certified individuals.

How Long Will a Radon Test Take?

Per the EPA’s *Home Buyer’s and Seller’s Guide to Radon*:

“Whether you test for radon yourself or hire a qualified tester, all radon tests should be taken for a minimum of 48 hours. Some devices require a longer (minimum) length of time, e.g., a 7-day charcoal canister device.”

Proper Use of Test Devices

Per the EPA’s *Home Buyer’s and Seller’s Guide to Radon*:

“When you are taking a short-term test, close windows and doors to the outside and keep them closed, except for normal entry and exit.

If you are taking a short-term test lasting less than four days, be sure to:

- Close your windows and outside doors at least 12 hours before beginning the test;
- Do not conduct short-term tests lasting less than four days during severe storms or periods of high winds;
- Follow the testing instructions and record the start time and date;
- Place the test device at least 20 inches above the floor in a location where it will not be disturbed and where it will be away from drafts, high heat, high humidity, and exterior walls;
- Leave the test kit in place for as long as the test instructions say; and
- Once the test is finished, record the stop time and date, reseal the package, and return it immediately to the lab specified on the package for analysis.”

How is a High Level of Radon Corrected?

The installation of a **radon mitigation/reduction system** should significantly reduce the radon level in a home. The purpose of radon reduction or mitigation systems is to vent air emitted from the soils under the dwelling around or through the dwelling for release outside the structure.

While the methods may differ, the theme is the same: a pipe is installed running from under the dwelling's foundation up through the dwelling and vents the air to the outside.

Systems include:

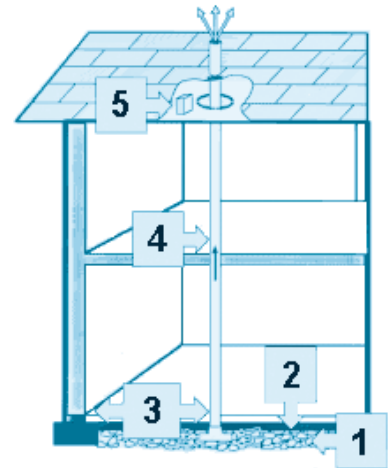
- ***Exterior installed system:*** visible from the outside of the home and subject to freeze and thaw cycles of weather.
- ***Attic installed system:*** a pipe may be installed in the garage and routed through the attic above, or if the garage option isn't available, the pipe may be installed and run through closets or utility chases to the attic.
- ***Passive mitigation system:*** common design is a four inch gas permeable gravel layer under a concrete slab with a soil gas collection pipe buried in the gravel that connects to a suction pipe extending through the interior of the dwelling and ultimately vents out the roof through an exhaust point.
- ***Active mitigation system:*** similar in design to a passive system, but has a motor or fan that creates suction to pull more radon out of the soil.

In recent years, more builders have begun routinely installing passive mitigation systems at the time they construct the dwelling, as it is far less expensive to install a system during construction, than to add one later. If the passive system is not adequate to keep radon levels in the home around 2.0 pCi/L, a fan can be installed later to convert the passive system into an active system. Fans often have a warranty and must be checked periodically to ensure the system is still operating as intended.

Builders who want to earn a "green built" certification for their properties often include radon resistant features during construction. The excerpt below, "Common Features in Radon Resistant Buildings," is reprinted from the EPA's booklet, *Home Buyer's and Seller's Guide to Radon* (page 10) and identifies common radon resistant additions.

Common Features in Radon Resistant Buildings

- 1. Gas-Permeable Layer:** This layer is placed beneath the slab or flooring system to allow the soil gas to move freely underneath the house. In many cases, the material used is a 4-inch layer of clean gravel. This gas-permeable layer is used only in homes with basement and slab-on-grade foundations; it is not used in homes with crawlspace foundations.
- 2. Plastic Sheeting:** Plastic sheeting is placed on top of the gas-permeable layer and under the slab to help prevent the soil gas from entering the home. In crawl spaces, the sheeting (with seams sealed) is placed directly over the crawlspace floor.
- 3. Sealing and Caulking:** All below-grade openings in the foundation and walls are sealed to reduce soil gas entry into the home.
- 4. Vent Pipe:** A 3-4 inch PVC pipe (or other gas-tight pipe) runs from the gas-permeable layer through the house to the roof to safely vent radon and other soil gases to the outside.
- 5. Junction Boxes:** An electrical junction box is included in the attic to make the wiring and installation of a vent fan easier. For example, you decide to activate the passive system because your test result showed an elevated radon level (4.0 pCi/L or more). A separate junction box is placed in the living space to power the vent fan alarm. An alarm is installed along with the vent fan to indicate when the vent fan is not operating properly.



Must a broker disclose that a home has a radon reduction/mitigation system?

The 2008-2009 *Real Estate Update* course had a section titled “Material Facts.” When discussing radon, the section offered the following guidance:

What if the seller had a radon problem in the past but installed some radon reduction system to remediate the problem and bring the radon within acceptable EPA levels. Is the mere presence of the radon reduction system a material fact? Because it was installed to remedy an existing problem which could reoccur if the system failed to operate correctly, the presence of the system should be viewed as a material fact and disclosed to prospective purchasers.

In other words, the presence of the system was a material fact because it existed to redress a known problem.

In past years, the presence of a radon mitigation system seemed to imply a problem, as it was not common practice to routinely include such features when building a structure. However, as noted previously, more and more builders are installing passive systems and implementing many of the

EPA's radon resistant practices as standard features of construction. Thus, the Commission decided to reconsider the material fact issue in light of changing practices.

Following presentations by staff from the NC Radiation Protection Section of the NC Department of Health and Human Services and extended discussions over several months regarding changing residential building practices, the Commission decided that the *mere presence alone of a radon reduction/mitigation system is not a material fact*.

However, a broker should investigate further when such a system is noticeable. For example, a broker should ask the seller whether the system contains a fan or motor, whether it is functioning, whether the home was tested and, if so, whether the results are known or the test report is available, and whether the system was installed when the house was built or after-market. Disclosure may be necessary depending on the answers to these types of questions about the system. Commission staff always encourages full and timely disclosure so a buyer can make a fully-informed decision before becoming bound by a contract. The Commission will evaluate situations based on individual facts.

ANSWERS TO DISCUSSION QUESTIONS

Page 1 Scenarios

1. Is the presence of radon a material fact in North Carolina?

Answer: Yes, if the radon level is 4.0 pCi/L or higher. If radon is present but measures less than 4.0 pCi/L, it is not a material fact.

2. Which of the following provide(s) reliable evidence of an elevated radon level? (Select all that apply.)
 - a. Presence of stone on the property
 - b. Topography and soil composition
 - c. Strong odor that is unique to radon
 - d. Proximity to another home with an elevated radon level
 - e. Radon test performed by a home inspector or radon inspector or homeowner

Answer: E.

3. You are representing a buyer who is moving to North Carolina from another state. Your buyer asks that a radon test be performed as part of the home inspection. According to the test results, the home has a radon level of 4.2 pico curies per liter [hereinafter “pCi/L”]. What are your buyer’s options?

Answer: The buyer’s options include:

A) terminating the contract;

B) asking the seller to remediate prior to closing;

C) requesting a reduction in the purchase price to cover buyer’s installation of a radon mitigation system, if the seller refuses to remediate;

D) accepting the property with its existing levels and mitigate the radon level after closing.

4. You are acting as a dual agent in a transaction. During the due diligence phase, the radon test reveals a radon level of 3.2 pCi/L, and the buyer decides to terminate the contract as a result. Are you required to disclose the radon test result to all future buyers?

Answer: No. The presence of radon is a material fact only when the level is equal to or exceeds 4.0 pCi/L. Brokers are not required to disclose radon levels less than 4.0 pCi/L.

5. If a seller knows that the house has been tested for radon and the test revealed that the house has a level equal to or exceeding 4.0 pCi/L, must the seller disclose the fact to prospective buyers?

Answer: No. North Carolina is a caveat emptor state (“let the buyer beware”) and, as discussed earlier, most owners must provide the RPOADS, but they aren’t required to disclose any information due to the “no representation” option. Only real estate brokers are required to discover and disclose material facts, and they may be disciplined for the negligent or willful failure to disclose a material fact.

Page 4 Radon True / False Exercise

This exercise is based on “*Radon Myths and Facts*,” below from the brochure, *Home Buyer’s and Seller’s Guide to Radon*, pages 27-28. [Publication: EPA 402/K-13/002, revised September 2013, available on the EPA’s website.]

1. Radon testing devices are not reliable and are difficult to find.

FALSE: Reliable radon tests are available from qualified radon testers and companies. Active radon devices can continuously gather and periodically record radon levels to reveal any unusual swings in the radon level during the test. Reliable testing devices are also available by phone or mail-order, and can be purchased in hardware stores and other retail outlets. Contact your state radon office for a list of qualified radon test companies.

Note: It is important to carefully follow testing instructions. If a broker or homeowner tampers with a testing device or opens windows during the test, the results may be inaccurate.

2. Radon testing is difficult and time-consuming.

FALSE: Radon testing is easy. You can test your home yourself or hire a qualified radon test company. Either approach takes only a small amount of time and effort.

3. Homes with high radon levels can be fixed.

TRUE: High radon levels may be significantly reduced by the installation of a radon mitigation system.

4. Radon only affects certain types of homes.

FALSE: Radon can be a problem in all types of homes, including old homes, new homes, drafty homes, insulated homes, homes with basements, and homes without basements. Local geology, construction materials, and how the home was built are among the factors that can affect radon levels in homes.

5. Radon is only a problem in certain parts of the state.

FALSE: High radon levels have been found in every part of the state. Radon problems do vary from area to area, but the only way to know a home’s radon level is to test.

6. A neighbor’s test result is a good indication of whether your home has a radon problem.

FALSE: Radon levels vary from home to home. The only way to know if your home has a radon problem is to test it.

Note that if your home is an attached dwelling such as a townhome or condominium unit, and your neighbor’s home has a high radon level, it is very likely that your home, too, will have a high level.

7. Everyone should test their water for radon.

FALSE: While radon gets into some homes through the water, it is important to first test the air in the home for radon. If your water comes from a public water system that uses ground water, call your water supplier. If high radon levels are found and the home has a private well, call the Safe Drinking Water Hotline at (800) 426-4791 for information on testing your water. Also, call your state radon office for more information about radon in air.

8. I have lived in my home for so long, it does not make sense to take action now.

FALSE: You will reduce your risk of lung cancer when you reduce radon levels, even if you have lived with an elevated radon level for a long time.

9. Short-term tests can be used for making a decision about whether to reduce the home's high radon levels.

TRUE: Short-term tests can be used to decide whether to reduce the home's high radon levels. However, the closer the short-term testing result is to 4.0 pCi/L, the less certainty there is as to whether the home's year-round average is above or below that level. Keep in mind that radon levels below 4.0 pCi/L still pose some risk and that radon levels can be reduced to 2 pCi/L or below in most homes.

Page 7 Discussion Questions

1. How would a broker know that a property's radon level meets or exceeds 4.0 pCi/L?

Answer: Seller or previous prospective buyer had a radon test conducted on the property.

2. If a broker knows that a property's radon level meets or exceeds 4.0 pCi/L, how might the broker disclose the information to clients and customers?

Possible answers include: MLS, emails, property information sheets, etc.

3. Should brokers recommend that buyers have radon tests performed? Why or why not?

Answer: As a best practice, brokers should recommend that every residential buyer have a radon test performed. Further, brokers should inform clients/customers of radon's prevalence in North Carolina.

Safe at Home: Preventing Lung Cancer

BY REDUCING RADON IN THE HOME

What is radon? Radon is a gas that you cannot see, smell or taste. It comes from the decay of radioactive elements (such as uranium, thorium and radium) in soil and groundwater.



Why should I be concerned about radon?

Breathing in radon is the second leading cause of lung cancer after smoking. Radon is the likely cause of more than 21,000 lung cancer deaths each year in the U.S. In 2015, lung cancer was the leading cause of cancer deaths in N.C.

What are your chances for getting lung cancer from radon?

Each one of the following influences your risk:

1. Level of radon in your home;
2. The amount of time you spend in your home;
3. If you are a smoker of tobacco or have ever smoked tobacco; and
4. If you are exposed to secondhand smoke.



How does radon cause lung cancer?

Radon gas decays into radioactive particles that can get trapped in your lungs when you breathe. These particles break down and release small bursts of energy. This can damage lung tissue and lead to lung cancer over the course of your lifetime. Not everyone exposed to high levels of radon will develop lung cancer, however the risk for lung cancer is increased.

How does radon get into a home?

Radon can rise from the rocks in the ground, through the soil, and to the air above. It comes into your home through cracks and holes in the foundation. The radon becomes trapped in your home. This can happen in new and old homes, homes with or without basements, and in high-rise and multi-family buildings. Underground well water can transport radon from the soil into the house.



Where is radon found in N.C.?

Nearly one out of every 15 homes in the U.S. is likely to have a high level of radon. Homes in all 100 counties of N.C. have tested at high levels for radon. The only way to know if your home has a radon problem is to test it. *(continued)*

Is radon only measured in homes?

No. Radon can get into any type of building. You and your family are most likely to be exposed at home because you spend most of your time there.

What is considered a high level of radon in the home?

The amount of radon in the air is measured in "picocuries per liter of air," or "pCi/L." A radon level in the home between 2 and 4 pCi/L is considered moderate risk and over 4 pCi/L is considered high risk for your health.

I am buying/selling a home. How do I get a property tested for radon?

There are no laws in N.C. regarding radon testing. The N.C. Radon Program recommends that you hire a certified radon contractor. This will give you reliable test results quickly. If you get your water from a well, you can test your groundwater for radon with a certified laboratory. Visit www.ncradon.org to find a certified radon tester.

What if the radon levels are high in my home? Can my home be fixed?

The EPA (U.S. Environmental Protection Agency) recommends fixing homes that have an average radon level over 4 pCi/L. The EPA suggests you consider fixing your home if it tests between 2 and 4 pCi/L. Most homes can easily be fixed to bring the radon levels below 4 pCi/L. Lowering high radon levels requires special knowledge and skills. Pick a contractor who is trained to fix radon problems. The National Radon Proficiency Program or the National Radon Safety Board certifies trained contractors. Visit www.ncradon.org for links.

How do I fix my home if the test show there is a high level of radon in water?

The N.C. Division of Public Health recommends testing well water for radon. Its experts say you should fix well water that tests high for radon. If the radon level is high in the well water, a second test for other types of radioactive particles like uranium and radium should be done. Select a contractor who is trained to fix radon problems. Contact your county health department's environmental health program for more information.

What will fixing my home cost me?

In 2017, the average cost for fixing a radon problem in an existing home was \$1,500. The average cost to include a radon reduction system when building a new home was \$800. The cost for a private well water radon treatment system ranges between \$1,500 - \$5,000. Visit www.ncradon.org to learn more about building Radon Resistant New Construction.

Will a radon reduction system impact the sale of my home?

Radon reduction systems have been installed in homes across N.C. since 1996. It is commonplace for national home building companies to install Radon Resistant New Construction in their new homes. Having a radon system in your home has not caused any problems for home sales.



NC Real Estate Commission



RADIATION PROTECTION



Cancer Prevention and Control Branch