



The State of New Hampshire  
**DEPARTMENT OF ENVIRONMENTAL SERVICES**



**Thomas S. Burack, Commissioner**

February 17, 2015

The Honorable John Hunt, Chairman  
Commerce and Consumer Affairs Committee  
Legislative Office Building, Room 302  
Concord, NH 03301

**Re: HB 498 relative to notification of radon and arsenic levels**

Dear Chairman Hunt and Members of the Committee:

The Department of Environmental Services (DES) is pleased to offer this testimony regarding HB 498, which would make changes to the required notification to buyers of real estate regarding radon in air and well water, and would add a requirement for notification regarding arsenic in well water. DES supports this bill.

Radon and arsenic are naturally occurring contaminants of significant public health concern in New Hampshire. DES has recommended for many years that indoor air be tested for radon and residential water supply wells be tested for both radon and arsenic. Many people remain unaware that these are important public health issues in New Hampshire. HB 498 would help N.H. residents to make better-informed decisions about testing for radon and arsenic when buying real estate.

A brief explanation of possible exposure routes and public health concerns for radon and arsenic is provided below:

**RADON:** Radon is a colorless, odorless, tasteless, naturally occurring radioactive gas produced from the decay of the element radium which occurs in certain rocks and soil worldwide. When radon accumulates in indoor air it can pose a serious health risk, primarily lung cancer. Radon can enter a home via three common pathways: 1) migration into the basement through cracks or other openings in the foundation; 2) release during household activities such as showering, dishwashing, and doing laundry of radon gas dissolved in water; and 3) release from building materials such as a granite block foundation and some floor or wall tiles. The State of New Hampshire had a radon program from 1988 through 2011. During that time the program distributed radon test kits and collected test results for over 25,000 New Hampshire households located throughout the state. The data showed that over 30% of these households had radon levels in air at or above the United States Environmental Protection Agency's (EPA's) recommended remediation level of 4.0 picocuries per liter. With respect to radon in well water, DES estimates that approximately 95 percent of bedrock water supply wells in New Hampshire produce water containing radon at levels higher than the maximum contaminant level (MCL) of 300 picocuries per liter proposed by the USEPA in 1999, and that 55 percent of wells in N.H. exceed DES's recommended action level of 2,000

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picocuries per liter. These estimates are based on several thousand test results from N.H. water supply wells. Radon is the second leading cause of lung cancer in the United States. In 2010, the N.H. Department of Health and Human Services estimated that radon exposure leads to the deaths of 100 N.H. residents each year.

Effective January 1, 2015 certification is required for persons engaged in designing and installing radon airborne mitigation systems in N.H. pursuant to RSA 310-A:189-a.

**ARSENIC:** Arsenic is a naturally-occurring element, quite common in bedrock and in well water in New Hampshire. The U.S. Geological Survey estimates that 20 percent of New Hampshire's private wells produce water containing arsenic at concentrations that exceed the state and federal MCL of 10 parts per billion for public water systems. USEPA has also established a non-enforceable goal of completely removing arsenic from public water supplies to eliminate cancer risk associated with arsenic. Exposure to arsenic can pose serious health risks including cancer and diabetes, as well as cardiovascular, immune system, nervous system and skin problems. According to a report prepared in 2014 by Dartmouth College for DES and N.H. Department of Health and Human Services, 450 to 600 of cases of cancer of the lung, bladder, or skin could be avoided in New Hampshire by convincing private well users to test and treat their water to remove naturally occurring arsenic.

HB 498 as introduced would provide a general notification during real estate transactions to ensure that New Hampshire's families have a better understanding of the potential for exposure to radon and arsenic and a greater ability to make well-informed decisions concerning the health of their families.

Thank you for the opportunity to provide this testimony in support of HB 498. Should you have any questions, or need additional information, please feel free to contact Sarah Pillsbury, Administrator of DES's Drinking Water and Groundwater Bureau (271-1168 or [Sarah.Pillsbury@des.nh.gov](mailto:Sarah.Pillsbury@des.nh.gov)) or Paul Susca (271-7061 or [Paul.Susca@des.nh.gov](mailto:Paul.Susca@des.nh.gov)).

Sincerely,



Thomas S. Burack  
Commissioner  
Department of Environmental Services

cc: Sponsors of HB 498