

November 19, 2008

Dear Resident:

The purpose of this letter is to educate and inform Madison residents about certain water quality issues.

Uranium is a common element in the bedrock in many parts of Connecticut. Recent tests of drinking water at a property near the Brown/Ryerson Schools have indicated the presence of elevated levels of uranium. Given this, there is the potential that uranium may be present in the water from other wells in Madison; however this can only be verified by individualized testing. Other related elements that may be found in well water association with uranium include radium (Ra-226 and 228) and Radon (collectively, radionuclides).

According to the Connecticut Department of Public Health, the chemical properties of this natural form of uranium in drinking water are of greater concern than its radioactivity. As a heavy metal, most ingested uranium is eliminated from the body, but a small amount is absorbed and carried through the bloodstream. Studies show that drinking water with elevated levels of uranium can affect the kidneys over time. Bathing, showering, washing and other household uses of water that do not involve consuming the water are not health concerns.

The only way to determine if your well contains uranium is by testing your well water. Uranium testing is generally less than \$200 and can be performed by a number of laboratories. You should ask for an analysis using atomic absorption or ICP-MS techniques. The following local laboratories have made arrangements to perform uranium analyses:

Environmental Consulting Laboratories	Madison	(203) 245-0568
Aquatek	Old Saybrook	(860) 388-1903

The following is a list of laboratories that are certified by the CT Department of Public Health to perform uranium testing.

List of laboratories certified by the State Health Dept. to test for uranium in water:

MHW Laboratories	Monrovia	CA	(626) 386-1100
Hazen Research, Inc.	Golden	CO	(303) 279-4501
Paragon Analytics	Fort Collins	CO	(970) 490-1511
Premier Laboratory, Inc.	Dayville	CT	(860) 774-6814
RSA Laboratories, Inc.	Hebron	CT	(860) 228-0721
KNL Laboratory Services, Inc.	Tampa	FL	(813) 229-2879
Underwriters Laboratories, Inc.	South Bend	IN	(574) 233-4777
TestAmerica St. Louis	Earth City	MO	(314) 298-8566
Eastern Analytical, Inc.	Concord	NH	(800) 287-0525
Life Science Laboratories - Brittonfield	East Syracuse	NY	(315) 437-0200
Waste Stream Technology, Inc.	Buffalo	NY	(716) 876-5290
Benchmark Analytics	Center Valley	PA	(610) 974-8100
PACE Analytical Services, Inc. - Pittsburgh	Greensberg	PA	(724) 850-5600
GEL Laboratories, LLC	Charleston	SC	(843) 556-8171

If your water is found to contain levels of uranium above the EPA standard of 30 micrograms per liter ($\mu\text{G/L}$), you may wish to install a point-of-use reverse osmosis treatment system in your home. This type of treatment device will remove many different contaminants from your drinking water, including uranium and radium. These devices are normally installed on the kitchen sink. They typically produce about 7-14 gallons per day of drinkable water. You should ensure that the system you purchase is “NSF certified for radium 226/228 reduction”. It is not necessary to treat all the water that you use in your house to correct a uranium or radium problem, since these chemicals only get into your body through ingestion. You should consult the State Health Department’s Fact Sheet on Uranium in Private Well Water at http://www.ct.gov/dph/LIB/dph/environmental_health/EOHA/pdf/uranium3.pdf for more information.

If you are considering having your water analyzed for uranium, you may wish to have a more complete analysis performed. Generally, you should analyze your water for the presence of coliform bacteria every year and perform a more general potability analysis every few years, or more frequently if you notice a change in its quality. There are a number of more exotic and much less common contaminants in drinking water for which you can test, including heavy metals, solvents, pesticides, etc.

Those residents that are served by a public water system, including the Connecticut Water Company have no reason to test their water. These systems are comprehensively regulated by the State Department of Public Health based on Federal regulations and their waters are analyzed on a very frequent basis for a wide variety of contaminants. The water systems are required to notify their customers when they have violated the regulations. The latest Water Quality Report for the Connecticut Water Company is located at: <http://www.ctwater.com/documents/2007CTWaterFINALS.pdf>. Madison is in the Shoreline Region.

The State Department of Public Health has a great deal of information on their website concerning drinking water: <http://www.ct.gov/dph/cwp/view.asp?a=3139&q=393238>. The US EPA has good information on radionuclides in water at <http://www.epa.gov/safewater/radionuclides/index.html>. You can also access more information of the Town of Madison website: www.MadisonCT.org under the Health Department link. The Town has arranged an informational forum on December 1, 2008 from 4 – 8 PM in the upper level of the Memorial Town Hall where there will be experts, including toxicologists and well water personnel on hand to answer your questions.

Sincerely,

John N. Bowers,
Director of Health