



## TOWN OF BROOKFIELD

### PUBLIC HEARING

The legal voters and residents of the Town of Brookfield are hereby notified that the Board of Selectmen will conduct a Public Hearing at the Brookfield Town Hall, Meeting Room 133, on **Monday, November 7, 2016, at 7:00 p.m.**, for the purpose of receiving public comment and opinion concerning a Modified Uranium Ordinance governing the testing of private water wells [Uranium and Arsenic] in the Town of Brookfield.

Copies of said Ordinance are on file and available for public inspection in the office of the Town Clerk and the Town's website [www.brookfieldct.gov](http://www.brookfieldct.gov).

Dated at Brookfield, CT, this 5th day of October, 2016.

Stephen C. Dunn, First Selectman

Sue Slater, Selectman

Martin Flynn, Selectman



**TOWN OF BROOKFIELD**  
**Health Department**

**Brookfield, CT 06804**

**RECEIVED**

SEP 27 2016

Town of Brookfield  
First Selectman

To: Members of the Board of Selectmen  
From: Raymond E Sullivan, M.D. Director of Health  
Subject: Modified Uranium Ordinance  
Date: 25 Sept 2016

With the changes placed by the Board of Selectmen on the previously submitted Ordinance concerning the high levels of Uranium and other Radio-nucleides in the water of public and private wells in the area, I hereby submit a modification of said ordinance since I still firmly believe that new homeowners in the Town of Brookfield have a right to know, in advance, the chemical condition of their wells. Said modification would require Uranium and Arsenic testing on the Sale of all homes, except those by Quit-claim, served by a private well. The costs of such tests and the means of correcting high levels of such substances are not excessive and may be particularly important when children will reside in the purchased home. I firmly believe, and significant scientific evidence exists, that there are "reasonable grounds" for its establishment.

Nowhere in Connecticut, is there a more pressing need for such a policy, as the presence of Uranium and other Radio-nucleides is widely known here and their presence is widely found. According to the Drinking Water Section of the Connecticut Health Department, Brookfield has some of the highest concentrations of such naturally occurring elements in the state. In the interest of the long term health of our residents, we strongly urge the Board of Selectmen to modify the existing Ordinance to include testing upon home sales.

Respectfully submitted,

Raymond E Sullivan, M.D., FACS  
Director of Health

Cc: Town Attorney

# **Proposed Ordinance Governing the Testing of Private Water Supply Wells in the Town of Brookfield, Connecticut**

**Pursuant to Chapter 368e §19a-207 of the general Statutes of  
the State of Connecticut, as amended,  
be it ordained by the Town of Brookfield, Connecticut  
that the following ordinance be created:**

## **Section 1: Definitions**

“Arsenic” – means the chemical element with an atomic symbol of As, which has been determined to be poisonous to multicellular life in certain levels and is classified as a human cancer-causing agent.

“Bedrock” – means the solid rock underlying unconsolidated surface materials, i.e. soil.

“CFR” – means the Code of Federal Regulations.

“CGS” – means the Connecticut General Statutes.

“Contaminant” – means any physical, chemical, biological or radiological substance or matter in water, as described in section 1401, Title XIV of the Federal Public Health Service Act.

“EPA” – means the federal Environmental Protection Agency.

“MCL” or “Maximum Contaminant Level” – means the maximum permissible level of a contaminant in drinking water ~~that is delivered to any consumer of a public water system~~ under the EPA’s National Primary Drinking Water Regulations.

“PHC” – means the Public Health Code of the State of Connecticut.

“Source Water” – means raw water before any kind or type of treatment at the source of supply.

“Radioactivity” – means the property possessed by some elements such as uranium, radium or an isotope spontaneously emitting energetic particles called electrons or alpha particles, which are produced by the disintegration of their atomic nuclei (cores).

“Radium” – means an intensely radioactive element occurring in combination in minute quantities, in naturally occurring minerals such as pitchblende or carnotite, which emits alpha particles and gamma rays to form radon.

“Radon” – means a gaseous breakdown product of radium, which retains some of its radioactivity.

“Toxicity” – means a feature of some substances, organisms, etc. which render them harmful to the body. Such toxicity may occur rapidly or over a long period of time.

“Uranium” – means a radioactive element found in nature, present in soil, air, water, rocks, plants and food, which breaks down very slowly into other elements including radium and radon gas.

“USC” – means the United States Code.

## Section 2: Authority

This ordinance is established under the authority of the following federal and state codes and statutes:

40 CFR Ch1 § 141.15 Protection of the Environment

Public Law 104-182; The Safe Drinking Water Act of 1996

42 USC § 300f et seq. Requirements under the Safe Drinking Water Act

40 CFR §§ 9, 141 and 142: National Primary Drinking Water Regulations

PHC: §19a-37

PHC: §19-13-B101

CGS: § 19-13-B80. Chemical Substances in Public Water Supplies.

CGS: § 19-13-B39 Quality of Water Supplies Made Available for the Public and for Employees

CGS: § 19-13-B50 and B51 et seq. Water Supply Wells and Springs

## Section 3: Purpose

### **Whereas:**

The State of Connecticut Department of Public Health requires regular, periodic testing of public drinking water systems, (PWS) including those in the Town of Brookfield, and initial testing of private water supplies (private groundwater wells) at the time of well construction;

**and whereas:** Prior to the institution of this ordinance, only defined potability parameters in private wells have been examined, as required by Section 19-13-101 of the Public Health Code, exclusive of testing for the presence of uranium or other harmful substances;

### **and whereas:**

State-required testing of several public water systems in Brookfield, and many instances of private well testing in recent years, has revealed very high levels of uranium and other Radionucleides such as Radon, which markedly exceed the U.S. Environmental Protection Agency standard;

### **and whereas;**

It is evident that the underlying bedrock in Connecticut, and Brookfield in particular, may have a higher than average potential for containing naturally occurring uranium and other associated radioactive elements; and uranium decays into isotopes of radium; and radium degrades to radon, these elements may also be more prevalent in Brookfield's ground water;

**and whereas:** the State of Connecticut, Department of Public Health Drinking Water Section has strongly urged testing for Arsenic and Uranium in Private Wells;

### **and whereas:**

Uranium is known to be toxic to the kidneys when ingested over a long period or in higher concentrations, elevated levels of this element in drinking water pose a long-term potential threat to the public health. In addition, the presence of its breakdown products – isotopes of radium – may be carcinogenic, i.e. cancer causing. Radium has been associated with leukemias, while Radon is the second leading cause of Lung Cancer. In addition, other harmful substances such as Arsenic are classified as a human cancer-causing agent.

**and whereas:**

A potential new owner or buyer of a property served by a private well has an inherent right to know in advance, the status of radionuclide and arsenic levels in said well,

**therefore,**

This ordinance is established to protect the public health, by requiring: 1. an owner of a newly constructed source of a private water supply (private groundwater well), or deepening or hydraulic fracturing of an existing well and 2. an owner of a property containing an existing well, who intends to enter into a sale or transfer of said property, other than by quit-claim, to specifically test for uranium and arsenic, in addition to normally required potability tests.

## Section 4: Specifications

1. Pursuant to a recommendation of the State of Connecticut Department of Public Health, any owner of a newly constructed source of private water supply, or is deepening, or hydraulic fracturing an existing private water supply (private groundwater well or spring) or an owner desirous of transferring or selling, other than by Quit-claim, a property containing a private source of water supply within the Town of Brookfield, shall be required to quantitatively test said water for the presence of uranium and arsenic, in addition to normally required potability tests. Such testing shall be performed on Source Water only. Such Uranium in drinking water (UDR) test results shall be submitted to the Brookfield Health Department, prior to the domestic use of such water supply.
2. Subject to the first section of paragraph 1 above, no water supply well permit shall be issued until it has been demonstrated to the satisfaction of the Director of Health or the Chief Sanitarian or both, that public sewers are available or a sub-surface sewage disposal system can be installed on the lot in compliance with Sections 19-13-B103a to 19-13- B104d inclusive, of the CGS.
3. All other sub-paragraphs of Section 19-13-B51(m), “Well Permits” apply.

## Section 5: Maximum Contaminant Levels

The acceptable MCL for Uranium in the Town of Brookfield shall be that of the federal EPA, i.e., 0.030 parts per million (PPM) or thirty micrograms per liter (30 µ/L)

The acceptable MCL for Arsenic in the Town of Brookfield shall be that of the federal EPA, i.e. 0.010 parts per million (PPM) or 10µg/Liter.

## Section 6: Violations and Penalties

If any newly constructed source of private water supply, or deepened or hydraulically fractured existing private water supply is employed for drinking or cooking purposes, prior to approval from required approval by the Brookfield Department of Health, said employment shall constitute a violation of this ordinance. Any transfer or sale of a property served by a private well, which has not been properly tested for Uranium and Arsenic shall constitute a violation of this ordinance. Any person or business entity that violates any provision of this ordinance shall be fined not more than one hundred dollars (\$100.) for each offense. Each day such violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such hereunder.