

216-RICR-50-05-2

TITLE 216 – DEPARTMENT OF HEALTH

CHAPTER 50 – ENVIRONMENTAL HEALTH

SUBCHAPTER 05 – WATER QUALITY

PART 2 – Private Drinking Water Systems

2.1 Authority and Purpose

- A. These regulations are promulgated pursuant to the authority conferred by R.I. Gen. Laws §§ 23-1-5.3(5) and 23-1-5.3(6), in order to protect public health by ensuring the drinking water quality of private water supply systems.
- B. The Office of Private Well Water Contamination (OPWWC) has established these rules and regulations to apply to all private-drinking-water systems, as defined in this Part, that do not meet the definition of a “public water supplier”, or those not covered by more stringent local community definitions. Additionally, these rules and regulations provide direction for local officials regarding local enforcement regarding data reporting requirements. Additional guidance, both electronic and hard copy will be published regarding the topics addressed within these rules and regulations.

2.2 Definitions

- A. Wherever used in these rules and regulations the following terms shall be defined as follows:
 - 1. “Act” means R.I. Gen. Laws §§ 23-1-5.2 and 23-1-5.3.
 - 2. “Action level” means detection of a constituent in drinking water which concentration equals or exceeds fifty percent (50%) of the HA, MCL, or SMCL (as defined below) and indicates need for further action such as increased monitoring.
 - 3. “Certified laboratory” means an analytical laboratory licensed by the Department under R.I. Gen. Laws Chapter 23-16.2, to perform biological, microbiological, chemical or radiochemical examination of potable water; or laboratory exempt from this law as provided for in R.I. Gen. Laws § 23-16.2-3 but which shall be certified by the State Certification official in accordance with 40 C.F.R. § 142.10b.

4. "Commercial/mixed use private water supply system" means a private supply system that serves a structure(s) consisting of one or more commercial spaces and/or more than four (4) family dwelling units that has been occupied as a dwelling and is under control of a single entity(s).
5. "Constituent" means a chemical or elemental component found in private well water.
6. "Department" means the Rhode Island Department of Health.
7. "Director" means the Director of the Rhode Island Department of Health.
8. "End-user" means that person or persons using the water for consumption or other purposes requiring potable water.
9. "Exceedance" means a concentration of a constituent that is greater than a standard or recommended upper limit (e.g., MCL) for that constituent.
10. "First draw" means a one-liter sample of tap water, collected from a cold-water source. Water for each sample shall have stood motionless in the plumbing system for at least six (6) hours and shall be collected without flushing the tap.
11. "Global positioning system location" or "GPS location" means specific geographic locations as determined by satellite signals. GPS locations shall be reported in the appropriate coordinate system (RI State Plane Feet) or in Latitude/Longitude in decimal degrees.
12. "Health advisory level" or "HA" means that level recognized by the state for which corrective action should be performed.
13. "Individual private water supply system" means a system that supplies a single or duplex residential unit.
14. "Interpreter" means an individual who has the education/experience necessary to interpret results of water quality analyses and is licensed to do so by the State of Rhode Island.
15. "Maximum contaminant level" or "MCL" means the maximum level allowable for a specific drinking water constituent.
16. "Multi-family residential systems" means systems that supply three (3) or more units.

17. “Non-potable” means a determination made through analysis that constituents that pose a health risk are present in levels exceeding existing standards.
18. “Notification” means the formal communication between the Department and the local public water supply agency and chief executive officer of the community if a private well shows contamination that threatens the local public water supply.
19. “Parameter”, as used herein, includes, but is not limited to, a constituent, contaminant, substance, organic chemical, metal, analyte, attribute, or other measurable physical property that can be analyzed for in drinking water.
20. “Person” means an individual, partnership, association, corporation, or any other legal entity or group of individuals who has/have decision-making responsibilities for one (1) or more end-users.
21. “pH” means a measurement of the acidity (hydrogen ion concentration) in water. Measurement ranges from 0 (acidic) – 14 (basic) with 7 being neutral.
22. “Point-of-entry treatment” means water treatment that serves the entire house by treating water and reducing contaminants as it enters the structure.
23. “Point-of-use treatment” means water treatment that serves only a single tap and reduces contaminants at the discharge point only.
24. “Potable” means fit or suitable to drink.
25. “Potability” means the determination that water is potable and is safe for consumption.
26. “Private-drinking-water system” means a system that extracts groundwater from a well or well field (wells on one (1) or more properties), provides potable water for human consumption, and does not meet the requirements to be classified as a public water system. These systems also include commercial – mixed use, multi-family residential, single/duplex residential, and individual private systems.
27. “Private well” means a water well that can serve as a private drinking water system.

28. "Private well field" means a collection of private wells that serve a private drinking water system.
29. "Private well water testing report form" means a standardized form for the reporting of certified laboratory results to be disseminated to the well owner or client to determine if the water is potable.
30. "Public notification" means a general notice relayed by the appropriate agency reporting well test detections of constituents (that could increase health risks to adjoining neighboring real estate owners) and recommending cautionary testing for parameters of concern.
31. "Public water system" means a system for the provision to the public of water for human consumption through pipes or constructed conveyances; if such a system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals daily at least sixty (60) days out of the year.
32. "Recommended limit" means the optimal range of upper and/or lower limits for various constituents, such as pH, Iron, or Manganese.
33. "Residence" means the location where a person is a domestic end-user of the water prior to entering the wastewater flow system.
34. "Residential building" means a structure consisting of one (1) or more residences that has an existing certificate of occupancy, but shall not include any structure newly constructed that is awaiting a certificate of occupancy.
35. "Sampler" means an individual who has education/experience necessary to acquire drinking water samples for laboratory analysis by following appropriate methods that may be found in New England States' Common Sample Collection & Preservation Manual for Drinking Water.
36. "Secondary maximum contamination level" or "SMCL" means the acceptable level allowable for aesthetic purposes.
37. "Service connection" means the point in a water distribution system where water is diverted from a communal flow line to a specific end user or residential unit. Service connections may or may not be metered.
38. "Shared well" means a common well or well field that provides drinking water to more than one (1) residential unit, commercial enterprise, or any combination thereof.

39. "Single/duplex residential rental system" means a private system that serves a single or duplex residential rental property.
40. "Standard" means a water quality standard as defined herein.
41. "Transfer" means a change in property title resulting in a change in the end consumers of the water. It does not include foreclosures or modification of property titles as a result of divorce or other situation where the same parties will continue to have use of the water for consumption.
42. "Water quality standard or drinking water standard" means a standard that applies to a constituent required for testing pursuant to these rules and regulations.
43. "Wastewater flow system" means the system of collection, treatment, and discharge of water post end-user.
44. "Water well" means any hole or excavation that is constructed for the purpose of removal of water using standards set forth in R.I. Gen. Laws Chapter 46-13.2.
45. "Water-well permit" means written approval given by the local building official to permit the construction of a drinking water well at a given location for testing as a potable source of water, to replace an existing source, or prior to issuing a building permit for new construction.
46. "Well record" means the required submission of detailed information on the construction and hydro-geologic settings and properties of a new or improved well to the Rhode Island Department of Environmental Management (RIDEM), in accordance with R.I. Gen. Laws Chapter 46-13.2.

2.3 Coverage

These regulations apply to any and all water-well systems that do not meet the definition of public water supply as defined by the "Rules and Regulations Pertaining to Public Drinking Water" and that supply water for human consumption.

2.4 Private Water System Classifications

- A. Commercial/Mixed Use Private Water Systems. Commercial/mixed use private water systems include, but are not limited to, small multi-unit commercial spaces or mixed-use (commercial/residential) buildings. This type of system provides

potable water to tenants as part of some form of rental or lease agreement entered into by the owner of the system as part of a commercial enterprise.

- B. Multi-Family Residential /Shared Well Private Water System. Multi-family residential/shared well private water system designed to supply multiple residential units with potable water. These systems may include but are not limited to; small apartment buildings or multiple houses/condos on a shared well or private well field.
- C. Single/Duplex Residential Rental Private Water System. This type of system is designed to supply one or two tenants of record with potable water for consumption and use. The residential units (up to 2) associated with this type of system are not owner occupied.
- D. Individual Private Water Systems. This type of system is designed to supply an owner(s) and/or one tenant of record with potable water for consumption and use.

2.5 Classifications and Qualifications for Private Water System Professionals

A. General Information

- 1. These regulations recognize three classifications of private-drinking water system professionals. They are:
 - a. Water Samplers;
 - b. Analytical Laboratories; and
 - c. Interpreters.
- 2. Each classification of professional shall possess the training, education, and experience as needed to either properly collect representative samples, analyze samples using accepted and appropriate methodologies, or to interpret results, form opinions, and to report conclusions using professional judgment based on existing standards. Specific qualifications and requirements are as follows.

B. Water Samplers

- 1. Individuals responsible for acquiring samples for analysis need to properly prepare sampling ports, determine appropriate containers and preservatives, and draw and assure proper sample handling based on analyses requested.

2. Samplers shall at a minimum, have or obtained the following qualifications:
 - a. Be eighteen (18) years of age or older;
 - b. Be of good moral character; and
 - (1) A high school diploma/GED, successful completion of a technical sampling course and six (6) months' work experience performing water quality fieldwork; or
 - (2) An associate's (or higher) degree in physical science or technical field, successful completion of a technical sampling course; or
 - (3) State certification as a Public Water Supply Treatment or Transmission and Distribution Operator under the "Rules and Regulations for Certification of Public Drinking Water Supply Treatment and Public Water Supply Transmission and Distribution Operators"; or
 - (4) Be employed, trained, and experienced in potable water sampling by an analytical lab certified by the Department to perform potability analysis in accordance with the "Rules and Regulations for Certifying Analytical Laboratories"; or
 - (5) Federal or State regulatory agencies will self-certify employees who perform sampling as a requirement of their job.

C. Analytical Laboratories

1. Only laboratories certified by the Department, in accordance with the "Rules and Regulations for Certifying Analytical Laboratories" shall be qualified to test private well samples for potability.
 - a. Laboratories shall possess analyte and method specific certificates for each category for which the laboratory is certified, as stated in R.I. Gen. Laws § 23-16.2-4.1.
 - b. In accordance with R.I. Gen. Laws § 23-16.2-13, it shall be unlawful for any analytical laboratory to perform testing or analyses of samples originating in this state, for which the Department requires certification, without having a certificate issued by the Department.

D. Interpreters

1. Interpreters shall possess sufficient training, education and experience needed to form opinions and draw conclusions using professional judgment. These opinions and conclusions shall be used to assist the property owner/buyer or building official to ensure that there is a feasible source of potable water available. In addition, the working knowledge of the interpreter will provide guidance on what actions, if any, are needed to treat or modify the water's chemical composition through the installation of either a Point-of-Entry or Point-of-Use treatment system. An interpreter shall have a combination of education and related experience as indicated below:
 - a. Be a Registered professional engineer licensed to practice in the State of Rhode Island; or
 - b. Be an environmental scientist/hydrogeologist holding a "Professional" category membership in the American Institute of Hydrology and/or the American Institute of Professional Geologists; or
 - c. Have a Bachelor's degree (or higher) in physical/earth science, or related field, with three (3) years' experience performing interpretation of water quality data as they apply to set standards or similar activities; or
 - d. Associate's degree in physical/earth science or engineering field and five (5) years related experience.

2.6 General Licensing Requirements

- A. The Department currently certifies analytical laboratories in accordance with the "Rules and Regulations for Certifying Analytical Laboratories". Therefore, the following licensing requirements shall only apply to the water sampler and interpreter classifications. Government regulatory agencies can elect to self-certify government employees in the water-sampler classification for the purpose of performing work related duties. The Department retains the right to review, approve, or reject these certifications at any time.
- B. No person shall act as a sampler or interpreter unless he or she is the holder of an appropriate and current license issued in accordance with the statutory provisions of the Act and the rules and regulations herein or is employed by a Department recognized self-certifying agency.

- C. If disqualifying information, as presented in § 2.8 of this Part, is found with respect to any person applying for licensure as a sampler or interpreter, then the Department shall make a judgment regarding licensure of that person.
- D. Application for licensure as a sampler or interpreter in this state shall be made on the forms provided by the Department. Such applications shall be accompanied by the following documents:
 - 1. Proof of Right to Work:
 - a. for U.S. born applicants, a certified or notarized copy of birth certificate;
 - b. for foreign-born applicants, proof of lawful entry into the country and eligibility for employment in the United States.
 - 2. Good moral character: indicated by signing the application affidavit statement.
 - 3. Non-conflict of Interest: Signed statement on application.
 - 4. Supporting evidence of education and training requirements in accordance with the classification sought as per § 2.5 of this Part: such documentation must be sent directly from the school or training program to the Department, in addition;
 - a. One (1) unmounted recent photograph of the applicant (head and shoulder frontal view) approximately 2x3 inches in size, with a legal signature in blue ink on the reverse side;
 - b. Such other information as the Department may deem necessary.

2.7 General Licensing Information

- A. The Director shall issue to applicants who have satisfactorily met the licensing requirements herein, a license to act as a sampler or interpreter in this state.
- B. Sampler or interpreter licenses, unless sooner suspended or revoked, shall be valid for a period of five (5) years and shall expire on of the fifth year from the date of issuance thereafter.
- C. Every person licensed who wishes to renew his or her license shall file a completed renewal application with the Department.

- D. Any person who allows his or her certification to lapse by failing to renew it within thirty (30) days of the anniversary date may be reinstated by the Director upon submission of an application, unless the license has been suspended or revoked.
- E. Any person using the titles of “licensed sampler” or “licensed interpreter” or functioning as either during the time that his or her license has lapsed or been suspended or revoked shall be subject to the penalties for violation of the statutory and regulatory provisions of this Part.

2.8 Grounds for Denial, Revocation or Suspension of Licenses

- A. The Department may suspend, revoke, or refuse to renew the license of a Sampler or Interpreter for cause, including but not limited to:
 - 1. Failure to maintain compliance with the above qualifications;
 - 2. Repeated or intentional violations (such as falsification of samples or data) of the Act or this Part; or
 - 3. Conviction (including but not limited to a plea of nolo contendere) of a felony.
- B. The Department may deny issuance of a license, suspend, revoke, or refuse to renew any license issued under the provisions of the Act and this Part, or may reprimand, censure or otherwise discipline, or place an interpreter/sampler on probation, upon decision and after hearing and upon proof that the licensee engaged in unprofessional conduct which includes but is not limited to:
 - 1. Has become unfit or incompetent by reason of negligence, habits, or other causes such as physical and mental impairment that would interfere with proper performance of duties;
 - 2. Has engaged in fraud or deceit in the practice of sampling private well water or interpretation of private well water analytical results or in his or her admission to such practice;
 - 3. Has been convicted in a court of competent jurisdiction, either within or without this state, of a felony;
 - 4. Misconduct in professional practice;
- C. If a sampler/interpreter is placed on probation, the Department may require the licensee to:

1. Report regularly to the Department on matters that are the basis of the probation;
 2. Limit practice to the areas prescribed by the Department; or
 3. Complete a prescribed program of continuing professional education until the licensee attains a degree of skill satisfactory to the Department in those areas that are the basis of the probation.
- D. All hearings and reviews as may be required herein shall be conducted in accordance with the provisions of § 2.10 of this Part.

2.9 Violations and Penalties

Any violations as set forth in § 2.8 of this Part shall be cause for the Department to impose such sanctions, denial, revocation or suspension of licensure or imposing a reprimand or censure or such other disciplinary action.

2.10 Rules Governing Practices and Procedures

All hearings and reviews required under the provisions of R.I. Gen. Laws § 23-1-5.3 shall be held in accordance with the provisions of the Act and the "Rules and Regulations Pertaining to Practices and Procedures Before the Rhode Island Department of Health" and "Rules and Regulations Pertaining to Access to Public Records of the Rhode Island Department of Health".

2.11 Adoption of Drinking Water Quality Standards for Private Wells

- A. To be consistent in protecting public health, analytical methodologies and water quality standards from the "Rules and Regulations Pertaining to Public Drinking Water" shall be adopted for use among private-drinking water systems to determine potability or non-potability of water.
- B. The constituents and corresponding limits presented in the "Rules and Regulations Pertaining to Public Drinking Water" will serve as the levels for determining exceedances of MCLs, SMCLs, and HAs for specific constituents listed.

2.12 Mandatory Testing Requirements for Private Water Supplies

2.12.1 Applicability

- A. All wells that will be used for potable water supply shall be tested:

1. Before a certificate of occupancy may be granted for the building(s) it is intended to serve, whether new or previously occupied; and
 2. Prior to the sale or transfer (as defined herein) of ownership of real property.
 3. Whenever a new well or well field is installed that would serve as a new source to an existing building(s).
- B. All wells subject to submission of a well record or local well permit shall be required to be tested as described in this section.

2.12.2 Minimum Testing Requirements

At a minimum, all private wells subject to these regulations shall be required to test for those constituents presented in Table 1 of § 2.12.2 of this Part. Local building officials may add additional constituents based on their knowledge of local conditions or issues.

TABLE 1 – Minimum Constituents and Testing Requirements	
Constituents. The minimal list of constituents needed for testing.	Testing Requirements (see guidance for testing frequency recommendations)
Alkalinity (as CaCO ₃)	For certificate of occupancy (new well for new or existing building) or transfer of real property
Total Coliform & Fecal or Escherichia Coliform	
Hardness (as CaCO ₃)	
Chloride	
Fluoride	
Iron	
Lead	
Manganese	

Nitrate/Nitrite	
pH	
Specific Conductance	
Sulfate	
Total Dissolved Solids	
Turbidity	
<p>Volatile Organic Compounds (VOCs). At a minimum, VOC testing must include the regulated VOCs listed in the "Rules and Regulations Pertaining to Public Drinking Water."</p>	
<p>MTBE. No MCL available, Rhode Island State Health Advisory level at 40 ppb.</p>	

2.12.3 New Private Water Systems

- A. Prior to being placed into service, the local building official shall classify all new private water systems or existing systems with new sources as commercial/mixed use, multi-family residential, single/duplex residential rental, or individual, as described in § 2.4 of this Part. This classification shall be used to determine recommended guidance on testing and reporting for systems by type.
- B. All required testing shall be performed on the well water in preparation for issuance of Certificate of Occupancy. However, Communities (building officials) or well drilling regulations may require preliminary screening tests to be completed prior to issuance of a building permit or initiation of construction.
- C. All required testing shall be performed after all plumbing and water-using appliances are in place and the system has been properly disinfected. The sampling point for this sample shall be an interior faucet that yields untreated (raw) well water. Any and all drinking water quality treatment systems in-place shall be identified and noted.

- D. All water samples for lead analyses shall be acquired as “first draw” samples from the cold-water tap. Bubblers or drinking fountains shall not be satisfactory sampling points. Any and all treatment systems in-place shall be identified and noted.

2.12.4 Transfer of Existing Private Water Systems

- A. In conjunction with R.I. Gen. Laws § 5-20.8-12, during the transfer or sale of any real property, served by a well(s) or which has a well(s) capable of being placed into service as a drinking water source, the well water shall be tested for, at a minimum, those constituents contained in Table 1 of § 2.12.2 of this Part and any other constituents detected during previous testing.
- B. All water samples for lead analyses shall be acquired as “first draw” samples from the cold-water tap. Bubblers or drinking fountains shall not be satisfactory sampling points. Any and all treatment systems in-place shall be identified and noted.
- C. Licensed interpreters shall interpret analytical results for compliance with adopted standards as stated within. Licensed interpreters shall submit letter reports containing their findings to their clients and the existing owners/designees.
- D. The existing owner/designee shall make available for review to potential buyers/transferees, any and all letter reports and supporting data in owner/designee’s possession that relate to the water quality of the property in question, for the prior ten (10) years.

2.13 Data Reporting

- A. Interpreters licensed to review and report on private well water results shall be required to submit to the Department, reports of all detections (directly or via a certified laboratory) on all mandatory testing (as defined in § 2.11 of this Part). These reports are required for inclusion of data into the private well module of the Department’s database. (Initial submissions will be copies of reports sent to private well customers while the electronic data transmission interface is being developed).
- B. All reports shall be submitted within fifteen (15) days of completion of analysis and will include:
 - 1. An accurate and complete street address;
 - 2. Plat, Block, and Lot for the property on which the well is located, and GPS coordinates for the well itself;

3. As well as complete analytical results for constituents in Table 1 of § 2.12.2 of this Part.

2.14 Reporting Terms, Responses, and Notification Requirements

- A. The reporting terms presented in Table 2 of § 2.14(A) of this Part are intended to provide clear, effective, and consistent communication between water quality professionals and system owners. Analytical laboratories may consider the use of these reporting terms as an additional option (beyond reporting numerical values). The reporting terms reflect a comparison of the detected levels to the existing limits for a given constituent. The constituent detected, level of detection, and corresponding reporting terms shall be used to determine the appropriate response. Reporting terms and recommended responses for all constituents shall be as follows:

TABLE 2 – REPORTING TERMS AND RESPONSES		
Level of Detection (with respect to MCL or HA)	Reporting Terms	Response. Any obvious change in water quality shall dictate consultation and retesting.
Detect up to 50% MCL or HA	Present	Note presence – monitor on regular schedule
>50% up to MCL or HA	Action Level	Monitor with more frequent testing (perhaps ½ suggested testing interval) – consider remediation or treatment options
> MCL or HA but < 10x	Elevated	Minimize ingestion and use bottled water. Water may still be used for other household purposes. Continued use may be dependent on the nature of the constituent. Retest immediately and seek remediation or treatment.
> Or = 10 x MCL or HA	Extremely Elevated	Discontinue use for all purposes
For SMCLs	Exceedance	Treatment is recommended not required

- B. When the analytical result for a constituent is reported as “Present” with respect to MCLs and HAs as described in this section, the licensed interpreter shall:
 - 1. Notify Department via a copy of the analytical report or by electronic data submission within fifteen (15) days of completion of analysis.
 - 2. Notify the system owner of the constituent(s) present and what, if any appropriate response is needed.
- C. When the analytical result for a constituent is reported as an “Action Level” or as “Elevated” with respect to MCLs and HAs as described in this section, the licensed interpreter shall:
 - 1. Notify the Department,
 - 2. Notify the system owner of the constituent(s) present and the appropriate response suggested or needed.
- D. When the analytical result for a primary constituent is reported as “Extremely Elevated” with respect to MCLs and HAs as described in this section, the interpreter shall:
 - 1. Immediately notify the Department,
 - 2. Immediately notify the system owner of the constituent(s) and level(s) present and appropriate responses needed.

2.15 Corrective Actions

- A. Licensed interpreters, and/or Local Building Officials shall determine appropriate corrective actions based on the reported level(s) of the constituents in the untreated water from a private water system. Additional testing may be required to evaluate whether a proposed treatment system is the most effective means to remove a constituent that is potentially hazardous to health.
- B. Corrective actions are categorized as follows:
 - 1. Immediate corrective actions shall be used upon the discovery of well water that is at the elevated or extremely elevated levels. These levels shall require minimizing or eliminating consumptive use and ingestion of the water. Immediate corrective actions shall include, but are not limited to: the use of bottled water or water from a different potable source for consumptive purposes and may require the discontinued use of the contaminated well water for other household purposes.

2. Short-term corrective actions shall be instituted in conjunction with immediate corrective actions associated with the highly elevated or hazardous levels, in order to provide a potable supply of water. Short-term corrective actions shall be an interim step while long-term corrective actions are considered. Short-term corrective actions may include, but are not limited to use of bottled water, installation of a point-of use or point-of entry treatment system.
3. Long-term corrective actions shall be instituted after a study of the source and nature of the constituent(s) present has been completed. Long-term corrective action options include: acquiring a new source, installation of a point-of use or point-of entry treatment system, or connection to public water supply.

216-RICR-50-05-2

TITLE 216 - DEPARTMENT OF HEALTH

CHAPTER 50 - ENVIRONMENTAL HEALTH

SUBCHAPTER 05 - WATER QUALITY

PART 2 - Private Drinking Water Systems (216-RICR-50-05-2)

Type of Filing: Amendment

Effective Date: 04/19/2018

Editorial Note: This Part was filed with the Department of State prior to the launch of the Rhode Island Code of Regulations. As a result, this digital copy is presented solely as a reference tool. To obtain a certified copy of this Part, contact the Administrative Records Office at (401) 222-2473.