

NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

CHAPTER Env-Dw 700 WATER QUALITY: STANDARDS, MONITORING, TREATMENT, COMPLIANCE,  
AND REPORTING

Statutory Authority: RSA 485:3

~~~~~ See separate document for Revision Notes ~~~~~

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PART Env-Dw 708 SAMPLING SCHEDULES

Env-Dw 708.01 Establishment and Modification of Sampling Schedules.

(a) The department shall provide each system owner with a sampling schedule in writing upon being notified by the system that it has commenced delivering water to customers.

(b) The sampling schedule shall identify the parameters to be tested, the points at which samples are to be collected, and the frequency of sampling for that particular system, consistent with those specified in Env-Dw 708.02 through Env-Dw 708.03.

(c) The sampling schedule shall be established for each parameter for which the sample is being collected based on:

- (1) The size and type of PWS for which the sampling schedule is prepared;
- (2) The concentration of the parameter;
- (3) The variability of the parameter; and
- (4) The reliability of the treatment process.

(d) The department shall notify each PWS owner in writing of any modification(s) to the sampling schedule established pursuant to this section that are required based on a change in federal requirements adopted by the state, the concentration of regulated parameters, new well or blend of well(s), new treatment, new potential sources of contamination found in the protective radius of the well(s), or other issues such as those identified based on an inspection.

(e) If the owner of a PWS wishes to modify the sampling schedule established for the PWS, the owner shall proceed in accordance with:

- (1) Env-Dw 708.04, for changes to sampling points;
- (2) Env-Dw 708.11, for reductions in monitoring for sources not used as potable water;
- (3) Env-Dw 709, for modifications to bacteria monitoring;

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(4) Env-Dw 710.06, for modifications to radionuclide monitoring;

Source. (See Revision Note #1) #9700, eff 5-1-10

Env-Dw 708.02 Monitoring Within A Compliance Period.

(a) Each PWS owner shall monitor for each parameter within each compliance period designated for that parameter in accordance with the system's sampling schedule established pursuant to Env-Dw 708.01.

(b) Subject to (c), and (d), below, if a PWS owner fails to submit a sample during the assigned monitoring period, the owner shall submit a sample, designated as a make-up sample, as soon as the owner discovers the failure or upon being notified of the failure by the department, whichever is earlier.

(c) If a PWS owner fails to submit an investigative monitoring E. coli source sample as required by Env-Dw 717, the owner shall collect a sample the month after completion of the required monthly sampling.

(d) No make-up shall be required if a PWS owner fails to collect a total coliforms sample as required by Env-Dw 709.

Source. (See Revision Note #1) #9700, eff 5-1-10; ss by #10771, eff 2-1-5

Env-Dw 708.03 Monitoring for Ground and Surface Water Systems. Unless otherwise noted, a PWS owner using a combination of groundwater and surface water shall monitor as if the source is a surface water supply.

Source. (See Revision Note #1) #9700, eff 5-1-10

Env-Dw 708.04 PWS Request for Changes to Sampling Points.

(a) The PWS owner shall collect the required sample(s) at each sampling point designated in the sampling schedule.

(b) If a PWS owner believes that a sampling point designated in the sampling schedule is not representative of the water being distributed to persons served by the system, the owner shall submit a written request to the department for a change to the sampling point for the affected parameter(s).

(c) A request submitted pursuant to (b), above, shall include the following:

- (1) The name of the PWS;
- (2) The PWS identifier for the PWS;
- (3) The existing and proposed sampling points;
- (4) Whether the change is proposed for all parameters or less than all parameters and, if less than all, the specific parameter(s) for which the change is being requested; and
- (5) An explanation of the reason for the request.

(d) The department shall approve the new sampling point(s) if the department determines that:

- (1) The proposed sampling point(s) is/are at least as representative of the water being distributed to persons served by the system as the existing sampling point(s);
- (2) Changing the sampling point(s) in accordance with the request will provide an operational benefit to the system; and
- (3) The new sampling point(s) will be in compliance with all federal requirements.

Source. (See Revision Note #1) #9700, eff 5-1-10; amd by #10771, eff 2-1-15

Env-Dw 708.05 Types of Samples Collected.

(a) Composite samples shall not be allowed; rather, a PWS owner shall collect one discrete sample from each sampling point.

(b) If a PWS draws water from more than one source and the sources are combined before distribution, a sample of the combined or blended water shall be taken, if specified in the sampling schedule, to satisfy that system's chemical monitoring requirements as specified in Env-Dw 707 and Env-Dw 710 through Env-Dw 713.

(c) The department shall approve a blended sample if:

(1) The sources are combined before entry to the distribution system;

(2) Where there are multiple sources, the sources are operated simultaneously or automatically alternated between pump operating cycles; and

(3) The sample is collected at the entry point to the distribution system.

(d) If a PWS draws water from more than one source and the sources are not combined before distribution, a sample of each source shall be taken, as specified in the sampling schedule, to satisfy that system's chemical monitoring requirements as specified in Env-Dw 707, Env-Dw 708, and Env-Dw 710 through Env-Dw 713.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15

Env-Dw 708.06 Separate Sampling Taps.

(a) Each source shall have a separate sampling tap except where conditions, such as vacuum manifold, prevent such tap installation.

(b) Where treatment is in use, separate sampling taps shall be installed prior to and after treatment.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10

Env-Dw 708.07 Averaging Results. If a confirmation sample is collected for any parameter, the results of the initial and confirmation sample shall be averaged to determine compliance unless otherwise specified in the parameter-specific section.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15

Env-Dw 708.08 Completion of Monitoring. The monitoring requirements for a PWS shall not be complete until all required sample(s) have been collected and analyzed, and the results received by the department, in accordance with all applicable monitoring and reporting requirements specified in subtitle Env-Dw.

Source. (See Revision Note #1) #9700, eff 5-1-10; ss by #10771, eff 2-1-15

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Env-Dw 708.09 Public Notice of Non-Compliance.

(a) Subject to (b), below, the PWS owner shall provide public notice in accordance with Env-Dw 800 if any violation occurs of any applicable MCL, MRDL, monitoring requirement, or treatment technique established in RSA 485 or Env-Dw 700.

(b) If a PWS has a distribution system with portions that are hydraulically separate from other parts of the distribution system, the owner may request approval from the department pursuant to Env-Dw 801 to limit the public notice to users of only that part of the PWS in which the applicable standard is exceeded.

Source. (See Revision Note #1) #9700, eff 5-1-10; ss by #10771, eff 2-1-15

Env-Dw 708.10 Collection of Additional Samples by the PWS Owner.

(a) A PWS owner may collect more samples than the minimum required and submit the analytical results to the department.

(b) Subject to (c), below, in order for sample results submitted pursuant to (a), above, to be used for compliance calculations, the samples shall be uniformly distributed over the appropriate monitoring interval, sampling points, and sources, or the data shall otherwise be representative of the water being consumed.

(c) A PWS owner may collect more than the minimum number of required routine samples and include the results in calculating whether the coliform trigger has been exceeded only if the samples are taken in accordance with the existing sampling schedule and are representative of water throughout the distribution system.

Source. (See Revision Note #1) #9700, eff 5-1-10; ss by #10771, eff 2-1-15

Env-Dw 708.11 Removing a Source; Reducing Monitoring Responsibility.

(a) Subject to (b), below, a PWS owner shall comply with all monitoring requirements for a source unless and until:

- (1) The source is physically disconnected from the distribution system piping by removing at least 12 inches of piping and capping both cut ends of the remaining pipe; and
- (2) The owner has notified the department in writing that the source has been disconnected.

(b) A water system designed or intended as a public water system, where there are fewer than 15 service connections and fewer than 25 people being served, shall be subject to the minimum monitoring requirements in Env-Dw 708.12.

(c) To reduce the frequency and extent of monitoring requirements when a source has not been removed as provided in (a), above, but is not used for human consumption due to the inability of the current water supply to meet the chemical standards specified in Env-Dw 701-706, the following conditions shall be met:

- (1) The water supply to which decreased monitoring is requested shall be clearly designated and labeled for non-potable use;
- (2) The PWS owner shall comply with the minimum monitoring requirements in Env-Dw 708.12;
- (3) The PWS owner shall provide potable water from an alternative source; and
- (4) If the potable water being provided is bottled water, the source shall have been approved pursuant to Env-Dw 303 or predecessor rules in Env-Ws 389.

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(d) To reactivate a source, all applicable monitoring requirements specified in Env-Dw 707 through Env-Dw 713 shall be completed prior to distributing any water from the source as potable water.

Source. (See Revision Note #1) #9700, eff 5-1-10

Env-Dw 708.12 Minimum Monitoring Requirements. Minimum monitoring shall consist of:

- (a) Quarterly bacteriological analysis in accordance with Env-Dw 709;
- (b) Annual nitrate analysis in accordance with Env-Dw 711.18 through Env-Dw 711.23; and
- (c) Nitrite analysis every 3 years in accordance with Env-Dw 711.24 through Env-Dw 711.29.

Source. (See Revision Note #1) #9700, eff 5-1-10

**APPENDIX A - STATUTES/REGULATIONS IMPLEMENTED**

| <b>Rule Section(s)</b> | <b>State Statute(s) Implemented</b> | <b>Federal Regulation(s) Implemented</b>       |
|------------------------|-------------------------------------|------------------------------------------------|
| Env-Dw 708.01          | RSA 485:3, I                        |                                                |
| Env-Dw 708.02          | RSA 485:3, I                        | 40 CFR 141.24 (f);<br>40 CFR 141.853 - 141.857 |
| Env-Dw 708.03          | RSA 485:3, I                        |                                                |
| Env-Dw 708.04 (c)(2);  | RSA 485:3, I                        | 40 CFR 141.24 (f);<br>40 CFR 141.853 - 141.857 |
| Env-Dw 708.05          | RSA 485:3, I                        | 40 CFR 141.24 (f)                              |
| Env-Dw 708.05(d)       | RSA 485:3, I                        | 40 CFR 141.24 (f);<br>40 CFR 141.853 - 141.857 |
| Env-Dw 708.06          | RSA 485:3, I                        |                                                |
| Env-Dw 708.07          | RSA 485:3, I                        |                                                |
| Env-Dw 708.08          | RSA 485:3, I                        |                                                |
| Env-Dw 708.09          | RSA 485:3, I                        | 40 CFR 141.32                                  |
| Env-Dw 708.10          | RSA 485:3, I                        |                                                |
| Env-Dw 708.11          | RSA 485:3, I                        |                                                |
| Env-Dw 708.12          | RSA 485:41, I                       | 40 CFR 141.26; 40 CFR 141.66                   |

**APPENDIX B - FEDERAL DEFINITIONS**

**40 CFR §141.2**

*Coagulation* means a process using coagulant chemicals and mixing by which colloidal and suspended materials are destabilized and agglomerated into flocs.

*Compliance cycle* means the nine-year calendar year cycle during which public water systems must monitor. Each compliance cycle consists of three three-year compliance periods. The first calendar year cycle begins January 1, 1993 and ends December 31, 2001; the second begins January 1, 2002 and ends December 31, 2010; the third begins January 1, 2011 and ends December 31, 2019.

*Compliance period* means a three-year calendar period within a compliance cycle. Each compliance cycle has three three-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993 to December 31, 1995; the second from January 1, 1996 to December 31, 1998, the third from January 1, 1999 to December 31, 2001.

*Conventional filtration treatment* means a series of processes including coagulation, flocculation, sedimentation, and filtration resulting in substantial particulate removal.

*Corrosion inhibitor* means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

*Direct filtration* means a series of processes including coagulation and filtration but excluding sedimentation resulting in substantial particulate removal.

*Disinfection* means a process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

*Domestic or other non-distribution system plumbing problem* means a coliform contamination problem in a public water system with more than one service connection that is limited to the specific service connection from which a coliform-positive sample was taken.

*Dose equivalent* means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its distribution in the body as specified the International Commission on Radiological Units and Measurements (ICRU).

*Flocculation* means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.

*Ground-water under the direct influence of surface water (GWUDI)* means any water beneath the surface of the ground with significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as *Giardia lamblia* or *Cryptosporidium*, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions.

*Haloacetic acids (five) (HAA5)* mean the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to 2 significant figures after addition.

*Initial compliance period* means the first full three-year compliance period which begins at least 18 months after promulgation, except for contaminants listed at §141.61(a)(19)-(21), (c) (19)-(33), and § 141.62(b)(11)-(15), initial compliance period means the first full three-year compliance period after promulgation for systems with 150 or more service connections (January 1993-December 1995), and first full three-year compliance period after the effective date of the regulation (January 1996-December 1998) for systems having fewer than 150 service connections.

*Large water system*, for the purpose of subpart I of this part only, means a water system that serves more than 50,000 persons.

*Lead service line* means a service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such lead line.

*Legionella* means a genus of bacteria, some species of which have caused a type of pneumonia called legionnaires disease.

*Level 1 assessment* is an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. It is conducted by the system operator or owner. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (e.g. whether a ground water system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The system must conduct the assessment consistent with any State directives that tailor specific assessment elements with respect to the size and type of the system and the size, type, and characteristics of the distribution system.

*Level 2 assessment* is an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. A Level 2 assessment provides a more detailed examination of the system (including the system's monitoring and operational practices) than does a Level 1 assessment through the use of more

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comprehensive investigation and review of available information, additional internal and external resources, and other relevant practices. It is conducted by an individual approved by the State, which may include the system operator. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (e.g., whether a ground water system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The system must conduct the assessment consistent with any State directives that tailor specific assessment elements with respect to the size and type of the system and the size, type, and characteristics of the distribution system. The system must comply with any expedited actions or additional actions required by the State in the case of an E. coli MCL violation.

*Man-made beta particle and photon emitters* mean all radionuclides emitting beta particles and/or photons listed in Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure, NBS Handbook 69, except the daughter products of thorium-232, uranium-235 and uranium-238.

*Maximum residual disinfectant level (MRDL)* means a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.

*Medium-size water system*, for the purpose of subpart I of this part only, means a water system that serves greater than 3,300 and less than or equal to 50,000 persons.

*Near the first service connection* means at one of the 20 percent of all service connections in the entire system that are nearest the water supply treatment facility, as measured by water transport time within the distribution system.

*Point-of-entry treatment device" (POE)* means a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.

*Point-of-use treatment device (POU)* means a treatment device applied to a single tap used for the purpose of reducing contaminants in drinking water at that one tap.

*Repeat compliance period* means any subsequent compliance period after the initial compliance period.

*Residual disinfectant concentration ("C" in CT calculations)* means the concentration of disinfectant measured in mg/l in a representative sample of water.

*Sedimentation* means a process for removal of solids before filtration by gravity or separation.

*Small water system*, for the purpose of subpart I of this part only, means a water system that serves 3,300 persons or fewer.

*Surface water* means all water which is open to the atmosphere and subject to surface runoff.

*Too numerous to count* means that the total number of bacterial colonies exceeds 200 on a 47-mm diameter membrane filter used for coliform detection.

*Virus* means a virus of fecal origin which is infectious to humans by waterborne transmission.

### **40 CFR §141.91 Recordkeeping requirements:**

"Any system subject to the requirements of this subpart shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, State determinations, and any other information required by §§141.81 through 141.88. Each water system shall retain the records required by this section for no fewer than 12 years."