

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 ~~~~~

PART Env-Dw 701 PURPOSE AND APPLICABILITY; UNITS OF MEASURE; DEFINITIONS

Env-Dw 701.01 Purpose

Env-Dw 701.02 Applicability

Env-Dw 701.03 Units of Measure for Maximum Contaminant Levels (MCLs) and Maximum  
Contaminant Level Goals (MCLGs)

Env-Dw 701.04 Definitions Based on Federal Regulations

Env-Dw 701.05 Definition of Clean Compliance History

PART Env-Dw 701 PURPOSE AND APPLICABILITY; UNITS OF MEASURE; DEFINITIONS

Env-Dw 701.01 Purpose. The purpose of the rules in Env-Dw 700 is to establish:

(a) Drinking water quality standards for public water systems (PWS), including maximum contaminant levels (MCLs), secondary maximum contaminant levels (SMCLs), and maximum contaminant level goals (MCLGs) for radiological, microbiological, organic, and inorganic contaminants, specified in Env-Dw 702 through Env-Dw 706;

(b) Laboratory analytical methods to assess drinking water quality, specified in Env-Dw 707;

(c) Monitoring, reporting, and compliance requirements for PWS, specified in Env-Dw 708 through Env-Dw 713, including coliform assessment triggers as specified in Env-Dw 709.22;

(d) Treatment requirements for PWS, including:

(1) Corrosion control, specified in Env-Dw 714;

(2) Disinfection and disinfection by-products, specified in Env-Dw 715; and

(3) Filtration and disinfection, specified in Env-Dw 716;

(e) Requirements applicable to PWS using groundwater, specified in Env-Dw 717;

(f) Reporting and recordkeeping requirements for PWS, specified in Env-Dw 719;

(g) Requirements relative to sanitary surveys, other inspections, and assessments in response to triggers, specified in Env-Dw 720;

(h) Procedures and criteria for exemptions, specified in Env-Dw 721;

(i) Treatment techniques and requirements for PWS, including best available treatment for various parameters, specified in Env-Dw 722; and

(j) Requirements relative to point-of-use and point-of-entry treatment, and the provision of bottled water, specified in Env-Dw 723.

Source. (See Revision Note #1) #9699, eff 5-1-10; amd by #10617, eff 6-1-14 (See Revision Note #5); amd by #10771, eff 2-1-15

NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

Env-Dw 701.02 Applicability.

(a) Unless otherwise specified, the rules in Env-Dw 702 through Env-Dw 706 shall apply to all water provided by a public water system, as defined in RSA 485:1-a, XV, or a privately-owned redistribution system, as defined in RSA 485:1-a, XIV-a.

(b) The remaining rules in Env-Dw 700 shall apply as specified therein.

Source. (See Revision Note #1) #9699, eff 5-1-10

Env-Dw 701.03 Units of Measure for Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs). The units of measure for MCLs and MCLGs shall be as follows:

- (a) Picocuries per liter, abbreviated as pCi/L;
- (b) Milligrams per liter, abbreviated as mg/L;
- (c) Micrograms per liter, abbreviated as µg/L;
- (d) Millirem per year, abbreviated as mrem/year; and
- (e) Fibers per liter, abbreviated as fibers/L.

Source. (See Revision Note #1) #9699, eff 5-1-10

Env-Dw 701.04 Definitions Based on Federal Regulations.

(a) The following terms used in this chapter shall be as defined in 40 CFR §141.2, reprinted in Appendix B:

- (1) “Compliance cycle”;
- (2) “Compliance period”;
- (3) “Corrosion inhibitor”;
- (4) “Domestic or other non-distribution system plumbing problem”;
- (5) “Dose equivalent”;
- (6) “Initial compliance period”;
- (7) “Lead service line”;
- (8) “Level 1 assessment”;
- (9) “Level 2 assessment”;
- (10) “Man-made beta particle and photon emitters”;
- (11) “Near the first service connection”;
- (12) “Point-of-entry treatment device”;
- (13) “Point-of-use treatment device”;
- (14) “Repeat compliance period”;
- (15) “Residual disinfectant concentration”; and
- (16) “Too numerous to count (TNTC)”.

NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

(b) Where 40 CFR 141 provisions are adopted by reference in this part, terms used in such provisions shall be as defined in 40 CFR 141.2, unless otherwise defined in this part.

(c) All other terms shall be as defined in RSA 485 or Env-Dw 100.

Source. (See Revision Note #5) #10617, eff 6-1-14

Env-Dw 701.05 Definition of Clean Compliance History. “Clean compliance history” means a record, over the prior 12 months, of:

- (a) No MCL violations under Env-Dw 702;
- (b) No monitoring violations under Env-Dw 707 through Env-Dw 717, Env-Dw 719, and Env-Dw 723;
- (c) No coliform treatment technique trigger exceedances or treatment technique violations under 40 CFR 141 Subpart Y, §§851- 861;
- (d) No violations of the lead and copper requirements specified in Env-Dw 714;
- (e) No violations of the public notification requirements specified in Env-Dw 800; and
- (f) As applicable, no violations of the:
  - (1) Certified operator requirements specified in Env-Dw 502;
  - (2) Public water system general operational requirements specified in Env-Dw 503;
  - (3) Public water system maintenance requirements specified in Env-Dw 504; and
  - (4) Permit to operate requirements specified in Env-Dw 501.

Source. (See Revision Note #5) #10617, eff 6-1-14; ss by #12420, eff 11-18-17

**APPENDIX A - STATUTES/REGULATIONS IMPLEMENTED**

| <b>Rule Section(s)</b>                                    | <b>State Statute(s) Implemented</b>               | <b>Federal Regulation(s) Implemented</b> |
|-----------------------------------------------------------|---------------------------------------------------|------------------------------------------|
| Env-Dw 701 (see also specific sections/ paragraphs below) | RSA 485:1, I                                      | 40 CFR 141 Subpart A                     |
| Env-Dw 701.01 intro                                       | RSA 485:41, IV                                    |                                          |
| Env-Dw 701.01(a)                                          | RSA 485:1, I                                      | 40 CFR 141 Subpart A                     |
| Env-Dw 701.01(b)                                          | RSA 485:44, I                                     | 40 CFR 141.28                            |
| Env-Dw 701.01(c)                                          | RSA 485:41, IV                                    |                                          |
| Env-Dw 701.01(d)                                          | RSA 485:3, I                                      | 40 CFR 141 Subpart H, I, L               |
| Env-Dw 701.01(e)                                          | RSA 485:3, I                                      | 40 CFR 141 Subpart S                     |
| Env-Dw 701.01(f)                                          | RSA 485:1, II(a)                                  | 40 CFR 141 Subpart D                     |
| Env-Dw 701.01(g)                                          | RSA 485:41, IV                                    |                                          |
| Env-Dw 701.01(h)                                          | RSA 485:41, IV                                    |                                          |
| Env-Dw 701.01(i)                                          | RSA 485:3, VIII                                   | 40 CFR 142 Subpart G                     |
| Env-Dw 701.01(j)                                          | RSA 485:1-a; RSA 485:3                            | 40 CFR 141 Subpart J                     |
| Env-Dw 701.02                                             | RSA 485:1, II                                     | 40 CFR 141 Subpart A                     |
| Env-Dw 701.03                                             | RSA 485:3, I                                      | 40 CFR 141 Subpart G                     |
| Env-Dw 701.04                                             | RSA 485:3, I, III, V, & VI<br>RSA 485:41, II & IV | 40 CFR 141.2                             |
| Env-Dw 701.05                                             | RSA 485:3, I, III, V, & VI<br>RSA 485:41, II & IV | 40 CFR 141.2                             |

## 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 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.

## NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

*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.”