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

Statutory Authority: RSA 485:2, V; RSA 485:41, IV

## **REVISION NOTE #1:**

Document #9699, effective 5-1-10, adopted new rules in a new Part Env-Dw 701, and readopted with amendments and renumbered former rules Env-Ws 310.01 and Part Env-Ws 312 through Part Env-Ws 316 under a new subtitle, respectively, as Env-Dw 701.01 and Part Env-Dw 702 through Part Env-Dw 706.

Document #9700, effective 5-1-10, readopted with amendments and renumbered many former rules in Env-Ws 300 under a new subtitle in Env-Dw 700 as follows:

Former Rule	New Rule
Env-Ws 321.01	Env-Dw 707.01
Env-Ws 310.02	Env-Dw 707.02
Env-Ws 321.02	Env-Dw 707.03
Env-Ws 321.03	Env-Dw 707.04
Env-Ws 321.04(a) & (b)	Env-Dw 707.05
Env-Ws 330.01 & 330.02	Env-Dw 707.06-707.08
Env-Ws 321.06, 321.04(c), 321.09-321.15	Env-Dw 708.01-708.08
Env-Ws 321.05	Env-Dw 708.09
Env-Ws 321.16	Env-Dw 708.10
Env-Ws 321.17	Env-Dw 708.11
Env-Ws 321.18	Env-Dw 708.12
Env-Ws 325	Env-Dw 709
Env-Ws 324	Env-Dw 710
Env-Ws 326.01-326.09	Env-Dw 711.01-711.06(a)
Env-Ws 321.19	Env-Dw 711.06(b)
Env-Ws 326.10	Env-Dw 711.07
Env-Ws 326.11	Env-Dw 711.08
Env-Ws 326.20-326.27	Env-Dw 711.09-711.17
Env-Ws 326.30-326.39 & 326.60	Env-Dw 711.18-711.29
Env-Ws 327.01, 327.02, 327.06, 327.07,	Env-Dw 712.01-712.16
327.10, 327.13, 327.14,	
327.40-327.42, 327.45, 327.47,	
327.49, 327.51-327.54	
Env-Ws 327.70	Env-Dw 712.17
Env-Ws 327.71-327.73, & 327.90	Env-Dw 712.18
Env-Ws 321.08	Env-Dw 712.19
Env-Ws 329	Env-Dw 713

Document #9701, effective 5-1-10, readopted with amendments and renumbered former rules Env-Ws 322.10 and Env-Ws 322.11 under a new subtitle, respectively, as Env-Dw 719.01 through Env-Dw 719.03.

The redesignation from subtitle Env-Ws to subtitle Env-Dw was done pursuant to a rules reorganization plan for Department rules approved by the Director of the Office of Legislative Services on 9-7-05.

Documents #9699, #9670, and #9671 replaced all prior filings for the former rules as cited above. The prior filings for these former rules, beginning with Document #6521, eff 6-4-97, which had readopted with amendments the entire Chapter Env-Ws 300, include the following documents:

Env-Ws 310	Env-Ws 322
#6521, eff 6-4-97 #8360, INTERIM, eff 6-4-05 #8474, eff 11-30-05	#6521, eff 6-4-97 #7501, eff 6-5-01 #9473, INTERIM, eff 6-5-09 #9606, EMERGENCY, eff 12-1-09
Env-Ws 312, 313, and 314	<u>Env-Ws 324</u>
#6521, eff 6-4-97 #8360, INTERIM, eff 6-4-05 #8474, eff 11-30-05	#8040, eff 2-14-04
<u>Env-Ws 315</u>	Env-Ws 325 and 326
#6521, eff 6-4-97 #7735, eff 8-2-02 #8360, INTERIM, eff 6-4-05 #8474, eff 11-30-05 Env-Ws 316 #6521, eff 6-4-97 #7645, eff 2-8-02 #8360, INTERIM, eff 6-4-05 #8474, eff 11-30-05	#6521, eff 6-4-97 #7501, eff 6-5-01 #9473, INTERIM, eff 6-5-09 #9606, EMERGENCY, eff 12-1-09  Env-Ws 327  #6521, eff 6-4-97 #7501, eff 6-5-01 #7735, eff 8-2-02 #8351, eff 5-14-05 #9473, INTERIM, eff 6-5-09 #9606, EMERGENCY, eff 12-1-09
Env-Ws 321	Env-Ws 329 and 330
#6521, eff 6-4-97 #7352, eff 8-24-00 #7501, eff 6-5-01 #8040, eff 2-14-04 #9473, INTERIM, eff 6-5-09 #9606, EMERGENCY, eff 12-1-09	#6521, eff 6-4-97 #7501, eff 6-5-01 #9473, INTERIM, eff 6-5-09 #9606, EMERGENCY, eff 12-1-09

Parts Env-Ws 309, 311, 317 through 320, 323, and 328 had already been deleted and the numbers reserved by filings prior to Documents #9699, #9670, and #9671.

# **REVISION NOTE #2:**

Document #9619, effective 1-1-10, adopted rules in a new Part Env-Dw 715, which was intended to replace the former rules in Part Env-Ws 382. Document #9733, effective 6-24-10, subsequently repealed the former rules Env-Ws 382.

Part Env-Dw 715 in Document #9619, upon the repeal of the former rules in Part Env-Ws 382, replaced all prior filings for the former rules. The prior filings for the former rules Env-Ws 382 include the following documents:

#7735, eff 8-2-02 #8351, eff 5-14-05

Document #9620, effective 1-1-10, adopted rules in a new Part Env-Dw 716, which was intended to replace the former rules in Part Env-Ws 380. Document #9732, effective 6-24-10, subsequently repealed the former rules Env-Ws 380.

Part Env-Dw 716 in Document #9620, upon the repeal of the former rules in Part Env-Ws 380, replaced all prior filings for the former rules. The prior filings for the former rules Env-Ws 380 include the following documents:

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#6521, eff 6-4-97
#7754, eff 8-21-02
#8352, eff 5-14-05
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## **REVISION NOTE #3:**

Document #9760, effective 7-30-10, adopted some new rules in a new Part Env-Dw 720, and readopted with amendments and renumbered some former rules in Env-Ws 300 in the new Part Env-Dw 720, as follows:

Former Rule	New Rule
Env-Ws 303.05	Env-Dw 720.01
Env-Ws 306.01	Env-Dw 720.02
Env-Ws 306.02	Env-Dw 720.03-720.06
(no former rule)	Env-Dw 720.07-720.09

Documents #9760 replaced all prior filings for the former rules as cited above. The prior filing for Env-Ws 303.05 and Env-Ws 306.02 was in Document #8498, effective 11-30-05. The prior filings for Env-Ws 306.02 include the following documents:

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#6521, eff 6-4-97
#8360, INTERIM, eff 6-4-05
#8498, eff 11-30-05
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# **REVISION NOTE #4:**

Document #9859, effective 2-8-11, adopted rules in a new Part Env-Dw 714, which was intended to replace the former rules in Part Env-Ws 381 entitled "Corrosion Control Treatment, Lead and Copper Action Levels." The former rules Env-Ws 381 expired 1-31-11.

Part Env-Dw 714 in Document #9859 replaced all prior filings for the former rules. The prior filings for the former rules Env-Ws 381, beginning with Document #5422, eff 6-22-92, include the following documents:

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#5422, eff 6-22-92
#5873, eff 7-26-94
#6521, eff 6-4-97
#7734, eff 8-2-02
#8351, eff 5-14-05
#9598, eff 11-21-09
#9757, INTERIM, eff 8-2-10, EXPIRED 1-31-11
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# **REVISION NOTE #5:**

Document #10617, effective 6-1-14, amended Env-Dw 701.01 introduction and paragraph (j), and adopted new rules Env-Dw 701.04 and Env-Dw 701.05.

#### Document #10617 also:

- Readopted with amendments and renumbered former Env-Ws 304.01, entitled "Recordkeeping Responsibility", under a new subtitle as Part Env-Dw 718, entitled "Recordkeeping Requirements;"
- Readopted with amendments and renumbered former Part Env-Ws 341, entitled "Variances and Exemptions", and Part Env-Ws 343, entitled "Exemptions Issued by the Department", as Env-Dw 721, entitled "Exemptions;" and
- Readopted with amendments and renumbered former Part Env-Ws 345, entitled "Best Available Technology, Treatment Techniques, or Other Means Generally Available"; former Part Env-Ws 346, entitled "Best Available Treatment (BAT) for Inorganic Chemicals"; and former Part Env-Ws 347, entitled "Best Available Treatment-Organics", as Part Env-Dw 722, entitled "Best Available Technology and treatment Techniques".

The redesignation from subtitle Env-Ws to subtitle Env-Dw for the rules above was done pursuant to a rules reorganization plan for Department rules approved by the Director of the Office of Legislative Services on 9-7-05.

The former Env-Ws 304.01, and former Parts Env-Ws 341, 343, 345, 346, and 347, had last been filed under Document #8498 or #8497, effective11-30-05, as noted below. These former rules did not expire on 11-30-13 since they were extended pursuant to RSA 541-A:14-a until replaced by the rules in Document #10617, effective 6-1-14.

Document #10617 replaces all prior filings for the former rule Env-Ws 304.01 and the rules formerly in Env-Ws 341, 343, 345, 346, and 347. The prior filings for these former rules, beginning with Document #6521, effective 6-4-97, which had readopted with amendments the entire Chapter Env-Ws 300, include the following documents:

## Env-Ws 304.01

#6521, eff 6-4-97 (as Env-Ws 304.10) #8360, INTERIM, eff 6-4-05 (as Env-Ws 304.10) #8498, eff 11-30-05

Env-Ws 341 & Env-Ws 343	<u>Env-Ws 346</u>
#6521, eff 6-4-97 #8360, INTERIM, eff 6-4-05 #8497, eff 11-30-05	#6521, eff 6-4-97 #7645, eff 2-8-02 #7735, eff 8-2-02 #8360, INTERIM, eff 6-4-05 #8497, eff 11-30-05
<u>Env-Ws 345</u>	<u>Env-Ws 347</u>
#6521, eff 6-4-97 #8040, eff 2-14-04 #8360, INTERIM, eff 6-4-05 #8497, eff 11-30-05	#6521, eff 6-4-97 #7261, eff 5-4-00 #8360, INTERIM, eff 6-4-05 #8497, eff 11-30-05

# REVISION NOTE #6:

Document #10618, effective 6-1-14, readopted with amendments and renumbered former Part Env-Ws 308, entitled "Criteria and Procedures for Non-Central Treatment", under a new subtitle as Part Env-Dw 723, entitled "Non-Central Treatment". The redesignation from subtitle Env-Ws to subtitle Env-Dw was done pursuant to a rules reorganization plan for Department rules approved by the Director of the Office of Legislative Services on 9-7-05.

The former Part Env-Ws 308 had last been filed under Document #8498, effective 11-30-05. The rules in the former Part Env-Ws 308 did not expire on 11-30-13 but were extended pursuant to RSA 541-A:14-a until replaced by the rules in Document #10618, effective 6-1-14.

Document #10618 replaces all prior filings for rules formerly in Env-Ws 308. The prior filings for rules in the former Env-Ws 308, beginning with Document #6521, effective 6-4-97, which had readopted with amendments the entire Chapter Env-Ws 300, include the following documents:

#6521, eff 6-4-97 #8360, INTERIM, eff 6-4-05 #8498, eff 11-30-05

## **REVISION NOTE #7:**

Document #12668, effective 1-1-19, effectively readopted with amendments Part Env-Dw 710, Part Env-Dw 711, Part Env-Dw 712, and Part Env-Dw 713. Document #12668 replaces all prior filings for the former rules affecting these Parts.

Document #12668 deleted the existing rule Env-Dw 711.29 titled "Reporting and Compliance for Nitrite" by not readopting it, as the subject matter is addressed in paragraph (b) in Env-Dw 711.24 titled "Monitoring and Reporting for Nitrite."

Document #12668 also adopted a new rule Env-Dw 712.01 titled "Definitions", which necessitated the renumbering of the existing rules in Part Env-Dw 712. The source notes for the rules in Part Env-Dw 712 after Env-Dw 712.01 indicate the former rule number. Document #12668 also readopted with amendments and renumbered Env-Dw 712.19 titled "VOC and SOC Chemical Monitoring Waivers" as 3 rules—Env-Dw 712.20 titled "VOC Contaminants Monitoring Waivers", Env-Dw 712.21 titled "SOC Contaminants Monitoring Waivers", and Env-Dw 712.22 titled "VOC and SOC Contaminants Monitoring Waivers; Duration, Conditions, Renewal, Revocation." The source notes for Env-Dw 712.20, Env-Dw 712.21, and Env-Dw 712.22 therefore contain filing history information for the former Env-Dw 712.19.

Most of the existing rules in Part Env-Dw 710, Part Env-Dw 711, Part Env-Dw 712, and Part Env-Dw 713 had last been filed under Document #9700, effective 5-1-10. The former rules did not expire on 5-1-18 but were extended pursuant to RSA 541-A:14-a until replaced by the rules in Document #12668, effective 1-1-19.

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

Env-Dw 701.01 <u>Chapter Purpose</u>. The purpose of the rules in Env-Dw 700 is to establish the following requirements for public water systems (PWS) and privately owned redistribution systems (PORS) as stated in Env-Dw 1200:

(a) Drinking water quality standards, 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) Sampling schedules, established in Env-Dw 708;
- (d) Monitoring, reporting, and compliance determination requirements for specified parameters, established in Env-Dw 709 through Env-Dw 713;
  - (e) Treatment requirements, including monitoring and reporting relative thereto, for the following:
    - (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;
  - (f) Requirements applicable to PWS using groundwater, specified in Env-Dw 717;
  - (g) Reporting and recordkeeping requirements, specified in Env-Dw 718 and Env-Dw 719;
- (h) Requirements relative to sanitary surveys, other inspections, and assessments in response to triggers, specified in Env-Dw 720;
  - (i) Procedures and criteria for exemptions, specified in Env-Dw 721;
- (j) Treatment techniques and requirements, including best available treatment for various parameters, specified in Env-Dw 722; and
- (k) 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 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; amd by #10617, eff 6-1-14 (See Revision Note #5 at chapter heading for Env-Dw 700); amd by #10771, eff 2-1-15; ss by #12664, eff 1-1-19

# 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 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12664, eff 1-1-19

Env-Dw 701.03 <u>Units of Measure for Maximum Contaminant Levels (MCLs) and Maximum Contaminant Level Goals (MCLGs)</u>. 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) Nanograms per liter, abbreviated as ng/L;

- (e) Millirem per year, abbreviated as mrem/year; and
- (f) Fibers per liter, abbreviated as fibers/L.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12664, eff 1-1-19; amd by #12838, eff 9-30-19

# 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)".
- (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 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12664, eff 1-1-19

# Env-Dw 701.05 Chapter-Specific Definitions.

(a) "Clean compliance history" means a record, over the prior 12 months, of:

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

<u>Source.</u> (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12420, eff 11-18-17; ss by #12664, eff 1-1-19

# PART Env-Dw 702 MICROBIOLOGICAL MCLs AND MCLGs

Env-Dw 702.01 <u>Applicability of Microbiological MCLs and MCLGs</u>. The microbiological MCLs and MCLGs shall apply to all systems as defined in Env-Dw 701.05.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

# Env-Dw 702.02 Determination of Compliance with Microbiological MCLs and MCLGs.

- (a) Each O/O shall monitor for microbiological contaminants as specified in Env-Dw 707, Env-Dw 708, and Env-Dw 709.
  - (b) Any of the following shall constitute an exceedance of the Escherichia coli (E. coli) MCL:
    - (1) The system has an  $\underline{E}$ . <u>coli-positive</u> repeat sample following a total coliforms-positive routine sample;
    - (2) The system has an  $\underline{E}$ . <u>coli-positive</u> or total coliforms-positive repeat sample following an  $\underline{E}$ . <u>coli-positive</u> routine sample;
    - (3) The system fails to take all required repeat samples following an  $\underline{E}$ . coli-positive routine sample; or
    - (4) The system fails to test for  $\underline{E}$ . coli when any repeat sample tests positive for total coliform.

(c) Upon completing all monitoring required for each sampling period, an O/O shall determine compliance with the <u>E</u>. <u>coli</u> MCL and the microbiological MCLGs and whether any coliform triggers have been exceeded, as specified in Env-Dw 707, Env-Dw 708, and Env-Dw 709.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

Env-Dw 702.03 MCLs and MCLGs for Microbiological Contaminants. MCLs and MCLGs for microbiological contaminants shall be as stated in Table 702-1, below:

Table 702-1: Microbiological MCLs and MCLGs

Microbiological Contaminant	MCL	MCLG
Cryptosporidium	None established	Zero
<u>E</u> . <u>coli</u>	See 702.02(b)	Zero
Giardia Lamblia	None established	Zero
<u>Legionella</u>	None established	Zero
Viruses	None established	Zero

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

## PART Env-Dw 703 RADIONUCLIDE CONTAMINANT MCLs AND MCLGs

Env-Dw 703.01 MCLs and MCLGs for Radionuclide Contaminants.

(a) For a community water system, the MCLs and MCLGs for radionuclide contaminants shall be as stated in Table 703-1, below:

Table 703-1: MCLs and MCLGs for Radionuclide Contaminants

Radionuclide Contaminant	MCL	MCLG
Compliance Gross Alpha	15 pCi/L	0 pCi/L
Radium 226 + 228	5 pCi/L	0 pCi/L
Uranium	30 μg/L	0 μg/L
Beta Particle and Photon Radioactivity	4 mrem/year	0 mrem/year

- (b) Compliance with radionuclide contaminant MCLs shall be:
  - (1) Calculated as specified in Env-Dw 710; and
  - (2) Based on the monitoring as specified in Env-Dw 707, Env-Dw 708, and Env-Dw 710.
- (c) The combined radium-226 and radium-228 value shall be determined by the addition of the results of the analysis for radium-226 and the analysis for radium-228, provided both analyses are performed on samples collected on the same day.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19; ss by #12819, eff 6-28-19

# Env-Dw 703.02 Radon Testing for New Water Supply Sources.

- (a) Analysis for radon shall only be required as part of the approval process for new community or non-transient non-community water supply sources or a new source at an existing community or non-transient non-community water system pursuant to applicable provisions of Env-Dw 302, Env-Dw 305, Env-Dw 405, and Env-Dw 406.
- (b) If the local legislative body of a political subdivision that is developing a new public water system or a new well for an existing public water system does not vote to approve funding for the radon test and the test is not fully funded by the state, the department shall not require the test to be performed by that political subdivision for that system or well.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19; ss by #12819, eff 6-28-19

# Env-Dw 703.03 Beta Particle and Photon Radioactivity from Man-Made Sources.

- (a) The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water provided by a community water system shall not produce an annual dose equivalent to the total body or any internal organ greater than 4 mrem/year.
- (b) In accordance with 40 CFR 141.66(d)(2) except for the radionuclides listed in Table 703-2, below, the concentration of man-made radionuclides causing 4 millirem total body organ dose equivalents shall be calculated on the basis of an intake of 2 liters of drinking water per day using 168 hour data as listed in "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," National Bureau of Standards Handbook 69 as amended August 1963, U.S. Department of Commerce.
- (c) If 2 or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 mrem/year.
- (d) The average annual concentrations assumed to produce a total body or organ dose of 4 mrem/year shall be as specified in Table 703-2, below:

<u>Table 703-2: Average Annual Concentrations Assumed to</u> Produce a Total Body or Organ Dose of 4 mrem/year

Radionuclide	Critical Organ	Average Annual Concentration (pCi/L)
Tritium	Total Body	20,000
Strontium 90	Bone Marrow	8

(e) Compliance shall be determined in accordance with Env-Dw 707, Env-Dw 708, and Env-Dw 710.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19; ss by #12819, eff 6-28-19

# PART Env-Dw 704 REGULATED INORGANIC CHEMICAL CONTAMINANT MCLs AND MCLGs

Env-Dw 704.01 <u>Applicability of MCLs and MCLGs for Health-Related Regulated Inorganic Chemical</u> (IOC) Contaminants.

- (a) Except as provided in (b) and (c), below, the MCLs and MCLGs for the health-related regulated inorganic chemical (IOC) contaminants specified in Env-Dw 704.02 shall apply to community water systems and non-transient non-community water systems.
- (b) The MCLs and MCLGs for nitrate and nitrite specified in Env-Dw 704.02 shall apply to community water systems, non-transient non-community water systems, and transient non-community water systems.
- (c) The MCL and MCLG for fluoride shall apply to all community water systems and only those non-transient non-community water systems that serve day care centers or schools with children under 9 years of age.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

Env-Dw 704.02 MCLs and MCLGs for Health-Related Regulated IOC Contaminants. The MCLs and MCLGs for health-related regulated IOC contaminants shall be as listed in Table 704-1, below:

Table 704-1: IOC MCLs and MCLGs

IOC Contaminant	MCL (mg/L unless otherwise specified)	MCLG (mg/L unless otherwise specified)
Antimony	0.006	0.006
Arsenic through June 30, 2021	0.010	Zero
Arsenic as of July 1, 2021	0.0050	Zero
Asbestos	7 million fibers/L (longer than 10 μm)	7 million fibers/L (longer than 10 μm)
Barium	2	2
Beryllium	0.004	0.004
Cadmium	0.005	0.005
Chromium	0.1	0.1
Copper	See Env-Dw 704.03	1.3
Cyanide (as free Cyanide)	0.2	0.2
Fluoride (also see Env-Dw 706)	4.0	4.0
Lead	See Env-Dw 704.03	Zero
Mercury	0.002	0.002
Nitrate (as N)	10	10
Nitrite (as N)	1	1
Total Nitrate + Nitrite	10	10
Selenium	0.05	0.05
Thallium	0.002	0.0005

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19; ss by #13044, eff 5-28-20

Env-Dw 704.03 <u>Lead and Copper</u>. The concentrations of lead and copper in drinking water shall be regulated as specified in Env-Dw 714.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

## PART Env-Dw 705 REGULATED ORGANIC CHEMICAL CONTAMINANT MCLs AND MCLGs

Env-Dw 705.01 MCLs and MCLGs for Health-Related Regulated Volatile Organic Chemical (VOC) Contaminants.

- (a) The MCLs and MCLGs for the health-related regulated volatile organic chemical (VOC) contaminants specified in (b), below, shall apply to each community water system and each non-transient non-community water system that has not requested and received a waiver as provided in Env-Dw 712.19.
- (b) The MCLs and MCLGs for health-related regulated VOC contaminants shall be as stated in Table 705-1, below:

Table 705-1: VOC MCLs and MCLGs

VOC Contaminant	MCL (mg/L)	MCLG (mg/L)
Benzene	0.005	Zero
Carbon tetrachloride	0.005	Zero
o-Dichlorobenzene (1,2-Dichlorobenzene)	0.6	0.6
para-Dichlorobenzene (1,4-Dichlorobenzene)	0.075	0.075
1,2-Dichloroethane	0.005	Zero
1,1-Dichloroethylene	0.007	0.007
cis-1,2-Dichloroethylene	0.07	0.07
trans-1,2-Dichloroethylene	0.1	0.1
Dichloromethane (Methylene chloride)	0.005	Zero
1,2-Dichloropropane	0.005	Zero
Ethylbenzene	0.7	0.7
Methyl tertiary-butyl ether (MtBE)	0.013	0.013
Monochlorobenzene (chlorobenzene)	0.1	0.1
Styrene	0.1	0.1
Tetrachloroethylene	0.005	Zero
Toluene	1	1
1,2,4- Trichlorobenzene	0.07	0.07
1,1,1-Trichloroethane	0.2	0.20
1,1,2-Trichloroethane	0.005	0.003
Trichloroethylene	0.005	Zero
Vinyl chloride	0.002	Zero
Xylene, Total	10	10

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

Env-Dw 705.02 MCLs and MCLGs for Health-Related Regulated Synthetic Organic Chemical (SOC) Contaminants.

(a) The MCLs and MCLGs for the health-related regulated synthetic organic chemical (SOC) contaminants specified in (b), below, shall apply to any community water system or non-transient non-community water system that has not requested and received a waiver as provided in Env-Dw 712.19.

(b) Subject to (c), below, the MCLs and MCLGs for SOC contaminants shall be as stated in Table 705-2, below:

Table 705-2: SOC Contaminant MCLs and MCLGs

SOC Contaminant	MCL (mg/L)	MCLG (mg/L)
Alachlor (Lasso)	0.002	Zero
Aldicarb (Temik)	0.003	0.001
Aldicarb sulfoxide	0.004	0.001
Aldicarb sulfone (aldoxycarb)	0.002	0.001
Atrazine (Atranex, Crisazine)	0.003	0.003
Carbofuran (Furadon, 4F)	0.04	0.04
Chlordane	0.002	Zero
Dalapon	0.2	0.2
Dibromochloropropane (DBCP)	0.0002	Zero
Di(2-ethylhexyl)adipate	0.4	0.4
Di(2-ethylhexyl)phthalate	0.006	Zero
Dinoseb	0.007	0.007
Diquat	0.02	0.02
Endothall	0.1	0.1
Endrin	0.002	0.002
Ethylene Dibromide (EDB)	0.00005	Zero
Glyphosate	0.7	0.7
Heptachlor	0.0004	Zero
Heptachlor Epoxide	0.0002	Zero
Hexachlorobenzene	0.001	Zero
Hexachlorocyclopentadiene	0.05	0.05
Lindane	0.0002	0.0002
Methoxychlor (DMDT, Martate)	0.04	0.04
Oxamyl (Vydate)	0.2	0.2
PAH -		
Benzo(a)pyrene	0.0002	Zero
Picloram	0.5	0.5
Polychlorinated Biphenyls (PCB)	0.0005	Zero
Pentachlorophenol	0.001	Zero
Simazine	0.004	0.004
Toxaphene	0.003	Zero
2,3,7,8 TCDD (Dioxin)	0.00000003	Zero
2,4,5 TP (Silvex)	0.05	0.05
2,4 D	0.07	0.07

- (c) Analysis for the following contaminants shall be required only as part of the initial pumping test and water quality sampling program required by Env-Dw 302, Env-Dw 305, Env-Dw 404, or Env-Dw 406, as applicable, based on the identification of a potential source of one or more of the contaminants in the preliminary contamination source inventory completed pursuant to Env-Dw 302.12, Env-Dw 305.12, Env-Dw 404.01, or Env-Dw 406.14, as applicable:
  - (1) Polychlorinated biphenyls (PCB);
  - (2) Dalapon;

- (3) Endothall; and
- (4) 2,3,7,8 TCCD (Dioxin).
- (d) Monitoring and compliance for SOC contaminants shall be as specified in Env-Dw 707, Env-Dw 708, and Env-Dw 712.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

# Env-Dw 705.03 MCLs and MCLGs for Health-Related Disinfection Byproducts.

- (a) The MCLs and MCLGs for the health-related disinfection byproducts specified in (c) and (d), below, respectively, shall apply to each community water system, non-transient non-community water system, and transient non-community water system at which any chemical disinfectant is added to the water in any part of the drinking water treatment process.
  - (b) Monitoring for disinfectant byproducts shall be as specified in Env-Dw 715.
  - (c) The MCLs for disinfection byproducts shall be as specified in Table 705-3 below:

Table 705-3: Disinfection Byproducts

Contaminant	MCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060
Bromate	0.010
Chlorite	1.0

(d) The MCLGs for disinfection byproducts shall be as specified in Table 705-4, below:

Table 705-4: MCLGs for Disinfection Byproducts

Contaminant	MCLG (mg/L)
Bromodichloromethane	0
Bromoform	0
Bromate	0
Chlorite	0.8
Chloroform	0.07
Dibromochloromethane	0.06
Dichloroacetic Acid	0
Monochloroacetic Acid	0.07
Trichloroacetic Acid	0.02

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

# Env-Dw 705.04 <u>Health-Related Regulated Residual Disinfectants</u>.

(a) The maximum residual disinfection levels (MRDLs) specified in (c), below, shall apply to each community water system and non-transient non-community water system at which any chemical disinfectant is added to the water in any part of the drinking water treatment process.

- (b) The chlorine dioxide MRDL specified in (c), below, shall apply to each public water system at which chlorine dioxide is used as a disinfectant or oxidant.
- (c) The MRDLs and maximum residual disinfection level goals (MRDLGs) for disinfectant residuals shall be as specified in Table 705-5 below:

Table 705-5: MRDLs and MRDLGs

Contaminant	MRDL (mg/L)	MRDLG (mg/L)
Chlorine, as Cl <sub>2</sub>	4.0	4
Chloramines, as Cl <sub>2</sub>	4.0	4
Chlorine Dioxide, as ClO <sub>2</sub>	0.8	0.8

(d) Monitoring and compliance for residual disinfectants shall be as specified in Env-Dw 715.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

Env-Dw 705.05 Special Treatment Chemicals.

- (a) The MCLs and MCLGs for the treatment chemicals specified in (b), below, shall apply to community water systems and non-transient non-community water systems.
  - (b) The MCLs and MCLGs for treatment chemicals shall be as specified in Table 705-6, below:

Table 705-6: MCLs and MCLGs for Certain Treatment Chemicals

Contaminant	MCL	MCLG
Acrylamide	0.05% dose at 1 mg/L	Zero
Epichlorohydrin	0.01% dose at 20 mg/L	Zero

(c) Compliance with the MCLs and MCLGs in Table 705-6, above, shall be determined in accordance with Env-Dw 712.19.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

Env-Dw 705.06 MCLs and MCLGs for Per- and Polyfluoroalkyl Substances (PFAS) Contaminants.

- (a) The MCLs and MCLGs for the per- and polyfluoroalkyl substances contaminants specified in (b), below, shall apply to community water systems and non-transient non-community water systems.
  - (b) The MCLs and MCLGs for PFAS contaminants shall be as specified in Table 705-7, below:

Table 705-7: PFAS Contaminant MCLs and MCLGs

PFAS Contaminant	MCL (mg/L)	MCLG (mg/L)
Perfluorohexane sulfonic acid (PFHxS)	0.000018	0
Perfluorononanoic acid (PFNA)	0.000011	0
Perfluorooctane sulfonic acid (PFOS)	0.000015	0
Perfluorooctanoic acid (PFOA)	0.000012	0

(c) Monitoring and compliance for PFAS contaminants shall be as specified in Env-Dw 707, Env-Dw 708, and Env-Dw 712.

Source. #12838, eff 9-30-19

# PART Env-Dw 706 REGULATED SECONDARY CONTAMINANT MCLs (SMCLs)

# Env-Dw 706.01 Regulated Secondary Contaminants SMCLs.

- (a) This part shall apply to contaminants in drinking water at concentrations that primarily affect aesthetic qualities relating to the public acceptance of drinking water, known as secondary contaminants. At considerably higher concentrations of secondary contaminants, health implications may also exist.
- (b) Subject to (c), below, the SMCLs for community water systems and non-transient non-community water systems shall be as stated in Table 706-1, below:

Table 706-1: Secondary Maximum Contaminant Levels

Contaminant	SMCL
Aluminum	0.05 - 0.2 mg/L
Chloride	250 mg/L
Color	15 color units
Copper	1.0 mg/L
Corrosivity	Non-corrosive
Fluoride	2.0 mg/L
Foaming Agents	0.5 mg/L
Iron	0.3 mg/L
Manganese	$0.05~\mathrm{mg/L}$
Methyl tertiary-butyl ether (MtBE)	$0.020~\mathrm{mg/L}$
Odor	3 threshold odor number
pН	6.5 - 8.5
Silver	0.1 mg/L
Sodium	250 mg/L
Sulfate	250 mg/L
Sulfide	0.05 mg/L
Total Dissolved Solids (TDS)	500 mg/L
Zinc	5 mg/L

(c) For aluminum, the SMCL based on color considerations shall be  $0.05~\rm mg/L$  and the SMCL based on treatment process considerations shall be  $0.2~\rm mg/L$ .

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; ss by #12665, eff 1-1-19

# Env-Dw 706.02 Monitoring for Aesthetic-Related Regulated Contaminants.

- (a) Monitoring for regulated secondary contaminants shall be as specified in Env-Dw 707, Env-Dw 708, and the applicable provision(s) of Env-Dw 711, Env-Dw 712, Env-Dw 713, and Env-Dw 714.
- (b) Subject to (c), below, monitoring for the factors listed below shall be waived after initial testing required pursuant to Env-Dw 302, Env-Dw 305, or Env-Dw 406, as applicable:
  - (1) Aluminum;
  - (2) Color;
  - (3) Corrosivity;

- (4) Foaming agents;
- (5) Odor;
- (6) Silver;
- (7) Sulfide; and
- (8) TDS.
- (c) The system shall take samples for the appropriate factors listed in (b), above, based on:
  - (1) Exceedances of the SMCLs in any of its active water supply sources; or
  - (2) Customer complaints attributable to these factors.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9699, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12665, eff 1-1-19

# PART Env-Dw 707 GENERAL MONITORING REQUIREMENTS; LABORATORY ANALYTICAL METHODS

Env-Dw 707.01 <u>Purpose</u>. The purpose of this part is to establish generally-applicable requirements for monitoring by public water systems (PWS) and privately owned redistribution systems (PORS), collectively "systems", including sampling and analysis, reporting, and compliance with water quality standards.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12666, eff 1-1-19

## Env-Dw 707.02 Adjustments to Monitoring Requirements.

- (a) The department shall require more frequent monitoring than that specified in Env-Dw 708 through Env-Dw 713 if the department determines that additional monitoring is necessary to confirm that a water source is capable of consistently producing an adequate supply of water that meets drinking water quality standards, because:
  - (1) The data submitted for any given parameter is inconsistent with the preponderance of data elements submitted for that water source for the same parameter;
  - (2) The data submitted for the water source exhibits constituents from known or unknown sources of contamination:
  - (3) Potential or known sources of contamination are located in the source water protection area of the water source:
  - (4) Treatment installed to treat water that exceeds an MCL has not consistently met design standards; or
  - (5) The data submitted after treatment indicates inconsistent contaminant removal is occurring.
- (b) If sample results indicate the presence of contaminants for which MCLs are not listed in Env-Dw 702 through Env-Dw 706 but which are included in the ambient groundwater quality standards (AGQS) specified in Env-Or 603.03, the system shall comply with the AGQS specified in Env-Or 603.03.

(c) The department shall review the monitoring requirements during each inspection or sanitary survey to determine whether the sampling point(s) and frequency meet all monitoring requirements. If the sampling point(s) and frequency do not meet all monitoring requirements, the department shall adjust the sampling point(s) and frequency to meet them.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12666, eff 1-1-19

# Env-Dw 707.03 Monitoring of Consecutive Public Water Systems.

- (a) Subject to (b), below, if a PWS supplies water to one or more other PWS or to a PORS, the department shall eliminate the requirements imposed on the consecutive systems by Env-Dw 710 through Env-Dw 713.
- (b) Each consecutive system shall monitor for bacterial contaminants as specified in Env-Dw 709 and for corrosion control parameters as specified in Env-Dw 714, in accordance with the schedule issued by the department pursuant to Env-Dw 708.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12666, eff 1-1-19

# Env-Dw 707.04 Validity of Laboratory Results.

- (a) The department shall not use sampling or laboratory results if the department determines that the data is:
  - (1) From an obvious sampling or laboratory error from known errors in collection, processing, or transcription;
  - (2) A technical impossibility;
  - (3) Inconsistent with the preponderance of data elements for the same parameter from the same source or system; or
  - (4) From a laboratory not accredited in accordance with Env-C 300 when such accreditation is required for the particular analysis.
- (b) Unless otherwise noted, any result that is below the detection limit of a test method approved for use pursuant to Env-Dw 707.07 shall be calculated as zero for the purpose of determining compliance.
- (c) All chemical concentration data submitted to the department for compliance purposes shall be reported in the same units used for the specified MCL, MCLG, SMCL, or MRDL, as applicable.
- (d) If sample results are not acceptable based on the criteria in (a), above, the O/O shall collect a replacement sample within 7 days of notification.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12666, eff 1-1-19

Env-Dw 707.05 <u>Additional Sampling</u>. The department shall require additional samples to be collected for:

- (a) Any samples exceeding the applicable MCL, SMCL, or MRDL specified in Env-Dw 702 through Env-Dw 706; and
  - (b) Any samples for which the results are invalid as specified in Env-Dw 707.04(a).

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12666, eff 1-1-19

Env-Dw 707.06 <u>Sample Analysis Methods; Sample Collection Protocol; Approval of Alternative</u> Methods.

- (a) Acceptable laboratory methods, detection limits, and sample collection protocols shall be those specified in 40 CFR 141, 142, or 143, as applicable.
- (b) The O/O of a PWS having its own laboratory or the O/O of a laboratory used by one or more PWS who wishes to use a method other than one specified in (a), above, shall obtain written permission from the department as specified in (c) through (e), below, prior to using any alternative method.
- (c) The O/O shall submit a request to use an alternative method in writing to the program manager of the NH environmental laboratory accreditation program (NH ELAP) at the address specified in Env-C 303.01(a).
  - (d) The request shall include all relevant information, including:
    - (1) The reason(s) for requesting approval of the alternate method; and
    - (2) Analytical data demonstrating the precision and accuracy of the alternative method as it relates to the determination of compliance with the applicable standard.
- (e) An alternative method shall be approved only if the NH ELAP program manager with the concurrence of the administrator of the U.S. EPA determines that the method is equivalent to or better than the prescribed test in both precision and accuracy as it relates to the determination of compliance with the applicable standard.
- (f) The use of an alternative analytical technique shall not decrease the frequency of monitoring required by this chapter.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12666, eff 1-1-19; amd by#12838, eff 9-30-19

# Env-Dw 707.07 Accredited Laboratory Required.

- (a) Subject to (c) and (d), below, compliance determinations for the contaminant categories listed in (b), below, shall be based on data provided by a laboratory accredited pursuant to Env-C 300 for the test being conducted.
  - (b) The contaminant categories covered by (a), above, shall be as follows:
    - (1) Microbiological, as specified in Env-Dw 702;
    - (2) Radiological, as specified in Env-Dw 703;

- (3) Inorganics, as specified in Env-Dw 704;
- (4) Organics, as specified in Env-Dw 705;
- (5) Secondaries, as specified in Env-Dw 706;
- (6) Lead and copper, as specified in Env-Dw 714;
- (7) Disinfection residuals, byproducts, and byproduct precursors, as specified in Env-Dw 715;
- (8) Filtration, disinfection, and waste recycling, as specified in Env-Dw 716; and
- (9) Groundwater monitoring, as specified in Env-Dw 717.
- (c) Samples for turbidity, chlorine residual, temperature, and pH may be performed by any individual qualified to perform the test.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12666, eff 1-1-19

Env-Dw 707.08 <u>Additional Sampling by Department</u>. Nothing in this chapter shall be construed to preclude the department, or any duly designated representative of the department, from:

- (a) Collecting samples; or
- (b) Using the results from such samples to determine compliance by a system with the applicable requirements of this chapter.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12666, eff 1-1-19

## PART Env-Dw 708 SAMPLING SCHEDULES

Env-Dw 708.01 Establishment and Modification of Sampling Schedules.

- (a) The department shall provide each O/O with a sampling schedule in writing upon being notified by the O/O 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 system 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 O/O 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 an O/O wishes to modify the sampling schedule established for the system, the O/O 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;
  - (4) Env-Dw 710.06, for modifications to radionuclide monitoring;
  - (5) Env-Dw 711.05, for modifications to inorganic chemical monitoring;
  - (6) Env-Dw 712.05, for modifications to volatile organic chemical monitoring; and
  - (7) Env-Dw 712.12, for modifications to synthetic organic chemical monitoring.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12667, eff 1-1-19

# Env-Dw 708.02 Monitoring Within a Compliance Period.

- (a) Each O/O 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 an O/O fails to submit a sample during the assigned monitoring period, the O/O shall submit the sample as soon as the O/O discovers the failure or upon being notified of the failure by the department, whichever is earlier.
- (c) If an O/O fails to submit an investigative monitoring <u>E</u>. <u>coli</u> source sample as required by Env-Dw 717, the O/O shall collect a sample the month after completion of the required monthly sampling.
- (d) No make-up sample shall be required if an O/O fails to collect a routine total coliforms sample as required by Env-Dw 709.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12667, eff 1-1-19

Env-Dw 708.03 <u>Monitoring for Ground and Surface Water Systems</u>. Unless otherwise noted, an O/O using a combination of groundwater and surface water shall monitor as if the source is a surface water supply.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12667, eff 1-1-19

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

- (a) The O/O shall collect the required sample(s) at each sampling point designated in the sampling schedule.
- (b) If an O/O 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 O/O 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 system;
  - (2) The PWS identifier for the system;
  - (3) Each existing sampling point and each proposed sampling point;
  - (4) Whether the change is proposed for all parameters or less than all parameters and, if less than all, each specific parameter for which the change is being requested; and
  - (5) An explanation of the reason for the request.
- (d) The department shall approve a new sampling point if the department determines that:
  - (1) The proposed sampling point is 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 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12667, eff 1-1-19

# Env-Dw 708.05 Types of Samples Collected.

- (a) Composite samples shall not be allowed; rather, an O/O 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; ss by #12667, eff 1-1-19

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; ss by #12667, eff 1-1-19

Env-Dw 708.07 <u>Averaging Results</u>. 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; ss by #12667, eff 1-1-19

Env-Dw 708.08 <u>Completion of Monitoring</u>. The monitoring requirements for a system 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 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12667, eff 1-1-19

# Env-Dw 708.09 Public Notice of Non-Compliance.

- (a) Subject to (b), below, the O/O shall provide public notice as required by Env-Dw 800 if any violation occurs of any applicable MCL, MRDL, monitoring requirement, treatment technique established in RSA 485 or Env-Dw 700, or reporting or recordkeeping requirement specified in Env-Dw 709, Env-Dw 720.14(b), or Env-Dw 720.16(b).
- (b) If a system has a distribution system with portions that are hydraulically separate from other parts of the distribution system, the O/O may request approval from the department pursuant to Env-Dw 801 to limit the public notice to users of only that part of the system in which the applicable standard is exceeded.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12667, eff 1-1-19

# Env-Dw 708.10 Collection of Additional Samples by the PWS O/O.

- (a) An O/O 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) An O/O 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 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12667, eff 1-1-19

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

- (a) Subject to (b), below, an O/O 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 O/O 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 source to meet the chemical standards specified in Env-Dw 701-706, the following conditions shall be met:
  - (1) The source for which decreased monitoring is requested shall be clearly designated and labeled for non-potable use;
  - (2) The O/O shall comply with the minimum monitoring requirements in Env-Dw 708.12;
  - (3) The O/O shall provide potable water from an alternative source; and
  - (4) If the potable water being provided is bottled water, the bottled water shall be produced by a facility that is licensed under:
    - a. RSA 143 and He-P 2100 or successor rules, if produced in New Hampshire; or
    - b. Applicable governmental authority if produced in another state or country.
- (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 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12667, eff 1-1-19

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 711.28.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12667, eff 1-1-19

## PART Env-Dw 709 MONITORING FOR MICROBIOLOGICAL CONTAMINANTS

Env-Dw 709.01 Applicability.

- (a) The rules in this part shall apply to all public water systems (PWS), including community water systems (CWS) and non-community water systems (NCS), whether transient NCS or non-transient NCS, and whether seasonal or non-seasonal systems.
- (b) Subject to (c), each PWS owner shall monitor according to the sampling schedule in effect on January 1, 2015 unless any of the conditions specified in Env-Dw 709 that trigger additional sampling requirements are met.
- (c) Commencing February 1, 2015, the owner of a seasonal system shall begin monthly sampling each month that the system serves water to the public, subject to (d), below.
- (d) The owner of a seasonal system where the entire distribution system remains pressurized during the entire period that the system is not serving water to the public shall monitor for total coliforms in accordance with the monitoring requirements for non-seasonal NCS specified in Env-Dw 709.08 and Env-Dw 709.09.

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 709.02 Location for Collection of Bacterial Samples.

- (a) Subject to (d) and (e), below, a PWS owner shall collect total coliform samples at the sampling points specified in the sampling schedule established pursuant to Env-Dw 708.01, which have been selected to be representative of water throughout the distribution system such as a customer's premises or dedicated sampling station.
- (b) If the PWS owner wishes to collect total coliform samples at alternate points, the owner shall seek approval of the proposed sampling points as specified in Env-Dw 708.04.
- (c) If the department determines that the sampling points for total coliforms are not representative of water throughout the distribution system, the PWS owner shall not collect total coliform samples until the department revises the sampling schedule to identify new sampling points.
- (d) Repeat total coliform samples required by Env-Dw 709.15 shall be collected at the locations specified in that section.
- (e) The additional routine total coliform samples required by Env-Dw 709.17 shall be collected at the locations specified in that 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 709.03 Collection of Bacteria Samples.

(a) The owner of a PWS that serves greater than 4,900 persons shall collect total coliform samples on at least 2 separate occasions at least 5 days apart throughout the sampling month.

- (b) Each group of total coliform samples collected pursuant to (a), above, shall contain as close to the same number of samples as possible.
- (c) Subject to (d), below, the owner of a PWS that uses only groundwater not under the direct influence of surface water, as defined in Env-Dw 100, and serves 4,900 persons or fewer may collect all required samples on a single day only if the samples are obtained at different sampling points.
- (d) For purposes of (c), above, multiple samples may be taken from a sample site only if the PWS has fewer sampling sites than the number of samples to be collected and at least one sample is collected from each sample site.
- (e) The PWS owner shall collect not less than the minimum number of required samples even if the system has had an <u>E</u>. <u>coli</u> MCL violation as described in Env-Dw 702.02 or has exceeded the coliform assessments triggers in Env-Dw 709.22.

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 709.04 General System Evaluation Bacteria Samples. Any general system evaluation total coliform sample collected to investigate potential problems in the distribution system, such as those taken to determine whether disinfection practices are sufficient following pipe placement, replacement, or repair, shall be used to determine compliance if the sample:

- (a) Is representative of water being supplied to consumers; and
- (b) Is positive for <u>E</u>. <u>coli</u> bacteria.

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 709.05 Frequency of Standard Monitoring for Total Coliforms for CWS.

(a) Subject to (b), below, and Env-Dw 709.06, the minimum number of total coliform samples taken per month by a CWS shall be based on the population served by the CWS, as specified in Table 709-1, below:

Table 709-1: Frequency of Standard Sampling for Community Water Systems

Population Served Lower Limit Upper Limit		Minimum number of samples per month
25	to 1,000	1
1,001 to	2,500	2
2,501 to	3,300	3
3,301 to	4,100	4
4,101 to	4,900	5
4,901 to	5,800	6
5,801 to	6,700	7
6,701 to	7,600	8
7,601 to	8,500	9
8,501 to	12,900	10
12,901	to 17,200	15
17,201	to 21,500	20
21,501	to 25,000	25
25,001	to 33,000	30

Population Served Lower Limit Upper Limit			Minimum number of samples per month
33,001	to	41,000	40
41,001	to	50,000	50
50,001	to	59,000	60
59,001	to	70,000	70
70,001	to	83,000	80
83,001	to	96,000	90
96,001	to	130,000	100
130,001	to	220,000	120
220,001	to	320,000	150
320,001	to	450,000	180
450,001	to	600,000	210
600,001	to	780,000	240
780,001	to	970,000	270
970,001	to	1,230,000	300
1,230,001	to	1,520,000	330
1,520,001	to	1,850,000	360

(b) The owner of a CWS for which the population varies seasonally, such as a community having a large influx of summer residents or a college community, shall average the daily population over each sampling period to determine the number of samples required in each sampling period.

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 709.06 Reduction in Total Coliform Monitoring for CWS Serving Fewer Than 1,000 Persons.

- (a) The owner of a CWS serving 25 to 1,000 persons may submit to the department a written request for a reduction in monitoring frequency from monthly to not less than one sample per calendar quarter.
  - (b) A request submitted pursuant to (a), above, shall include the following information:
    - (1) The name of the CWS;
    - (2) The PWS identifier for the CWS; and
    - (3) The rationale for the reduction in monitoring, based on the criteria listed in (c), below.
  - (c) The department shall approve a request submitted pursuant to this section if it determines that:
    - (1) The CWS has not been required to issue a boil order in accordance with Env-Dw 709.19 within the preceding 12 months;
    - (2) The CWS has a clean compliance history as defined in Env-Dw 701.05;
    - (3) The CWS's most recent sanitary survey confirms that the system:
      - a. Is supplied solely by one or more protected water sources;
      - b. Is free of sanitary defects and significant deficiencies;

- c. Meets applicable construction standards; and
- d. If applicable, has an approved corrective action plan and schedule pursuant to Env-Dw 720 and is in compliance with the plan and schedule;
- (4) The CWS has not had an on-line inactivation or disinfection process in operation in the previous 12 months; and
- (5) The CWS is in compliance with RSA 485:11 relative to backflow prevention devices.
- (d) The department shall notify the CWS owner in writing of its decision on the request to reduce the frequency of bacteria monitoring. If the request is denied, the notice shall specify the reason(s) for the denial.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12420, eff 11-18-17

Env-Dw 709.07 Return to Standard Monitoring Frequency for CWS Serving 1,000 Persons or Fewer.

- (a) A CWS for which a reduction in monitoring for total coliforms has been approved pursuant to Env-Dw 709.06 shall return to standard monthly monitoring by taking the number of samples for total coliforms specified in Env-Dw 709.05(a) the month following the event if:
  - (1) The CWS:
    - a. Has an E. coli MCL violation;
    - b. Triggers a level II assessment or 2 level I assessments in a rolling 12-month period;
    - c. Has a treatment technique violation as specified in Env-Dw 709.23;
    - d. Has 2 bacteria monitoring violations in a rolling 12-month period;
    - e. Is required to issue a boil order in accordance with Env-Dw 709.19;
    - f. Is without a certified operator for the system for more than 30 consecutive days;
    - g. Adds a new source; or
    - h. Has a sanitary defect;
  - (2) The department determines that a groundwater source for the CWS is under the direct influence of surface water or otherwise no longer qualifies as a protected water source, for example due to activities or circumstances that makes the source vulnerable to pathogenic contamination; or
  - (3) The physical configuration of the CWS warrants additional monitoring to accurately determine water quality.
- (b) If the department determines that any of the criteria listed in (a), above, has been met, the department shall notify the CWS owner in writing of its determination and that Env-Dw 709.07(a) requires the system to return to the monitoring frequency for total coliforms specified in Env-Dw 709.05(a).

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12420, eff 11-18-17

Env-Dw 709.08 <u>Frequency of Standard Monitoring For Total Coliforms for Non-Seasonal NCS and Certain Seasonal Systems.</u>

- (a) Subject to (b) and (c), below, and Env-Dw 709.09, the owner of a non-community water system (NCS) that is served solely by one or more protected water sources and that either is not a seasonal system or is a seasonal system that is described in Env-Dw 709.01(d) shall monitor for bacteria based on the number of persons served, as follows:
  - (1) If the NCS serves 1,000 persons or fewer per month, the owner shall collect one sample during each calendar quarter that the NCS provides water to the public; and
  - (2) If the NCS serves more than 1,000 persons during any month, the owner shall take the number of samples for total coliforms per month as required for a like-sized community water system, as specified in Env-Dw 709.05(a).
- (b) If the number of persons served by an NCS is event-driven, such as a racetrack, fairgrounds, or concert venue, the owner shall take the number of samples for total coliforms as a like-sized CWS as specified in Env-Dw 709.05(a), using the average daily population calculated over a one-month period.
- (c) An NCS supplied by surface water or groundwater under the direct influence of surface water shall monitor for coliform bacteria monthly.

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 709.09 Return to Standard Monitoring Frequency for NCS Serving 1,000 Persons or Fewer.

- (a) The owner of an NCS monitoring bacteria at the frequency established by Env-Dw 709.01(b) or at a reduced frequency under Env-Dw 709.12 shall return to the standard bacteria monitoring frequency if:
  - (1) The NCS:
    - a. Has a bacteria monitoring violation;
    - b. Has been required to issue a boil order in accordance with Env-Dw 709.19;
    - c. Has installed a continuously-operating bacterial disinfection/inactivation treatment process within 6 months of incurring a bacterial MCL violation;
    - d. Adds a new source; or
    - e. Has a sanitary defect;
  - (2) The physical configuration of the NCS warrants additional monitoring to accurately determine water quality; or
  - (3) The department learns of an activity or circumstance that makes the source vulnerable to pathogenic contamination.

(b) If the department determines that any of the criteria listed in (a), above, has been met, the department shall notify the NCS owner in writing of its determination and that Env-Dw 709.09(a) requires the system to return to monitoring for total coliforms at the standard quarterly frequency.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12420, eff 11-18-17

# Env-Dw 709.10 Increase to Monthly Monitoring for NCS Serving 1,000 Persons or Fewer.

- (a) The owner of an NCS that serves 1,000 persons or fewer that is monitoring for total coliforms less frequently than monthly pursuant to Env-Dw 709.08 or Env-Dw 709.12 shall begin monthly bacteria monitoring if the NCS:
  - (1) Has an E. coli MCL violation;
  - (2) Experiences one level II assessment trigger or 2 level I assessments triggers in a rolling 12-month period;
  - (3) Has a treatment technique violation as specified in Env-Dw 709.23 or Env-Dw 506.07;
  - (4) Has 2 bacteria monitoring violations in a rolling 12-month period; or
  - (5) Has one bacteria monitoring violation and experiences one level I assessment trigger in a rolling 12-month period.
- (b) If the department determines that any of the criteria listed in (a), above, has been met, the department shall notify the NCS owner in writing of its determination and that Env-Dw 709.10(a) requires the system to begin monitoring for total coliforms at the increased frequency.
- (c) The owner may request the department to allow the system to return to quarterly monitoring for total coliforms by submitting a written request that includes the following:
  - (1) The name of the NCS:
  - (2) The PWS identifier of the NCS; and
  - (3) The rationale for the reduction in monitoring, based on the criteria in (d), below.
- (d) The department shall authorize the system to return to quarterly sampling for total coliforms if the NCS has not been required to issue a boil order in accordance with Env-Dw 709.19 in the preceding 12 months, has a clean compliance history, and either:
  - (1) A level II assessment has been conducted within the preceding 12 months by an individual who meets the qualifications specified in Env-Dw 720.12 and all identified sanitary defects have been corrected; or
  - (2) The department has conducted a sanitary survey within the preceding 12 months and confirmed that the NCS:
    - a. Is supplied solely by one or more protected water sources; and
    - b. Is free of sanitary defects and significant deficiencies.

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 709.11 <u>Standard Monitoring for Total Coliforms for Seasonal Systems</u>. The owner of a seasonal system that is not described in Env-Dw 709.01(d) shall monitor for total coliforms each month the system is in operation based on the number of persons served, as follows:

- (a) If the seasonal system serves 1,000 persons or fewer per month, the owner shall collect one total coliform sample each month that the system provides water to the public; and
- (b) If the seasonal system serves more than 1,000 persons during any month, the owner shall take the number of total coliform samples as a like-sized CWS as specified in Env-Dw 709.05(a).

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 709.12 <u>Reduction in Total Coliform Monitoring for Seasonal Systems Serving 1,000 Persons</u> or Fewer.

- (a) The owner of a seasonal system that is not described in Env-Dw 709.01(d) that serves 1,000 persons or fewer may request the department to reduce the monthly monitoring frequency to not less than one sample per calendar quarter.
- (b) To request the reduction allowed by (a), above, the owner of the system shall submit the following information in writing to the department:
  - (1) The name of the seasonal system;
  - (2) The PWS identifier of the seasonal system; and
  - (3) The rationale for the reduction in monitoring frequency, based on the criteria in (c), below.
  - (c) The department shall approve the request if the department determines that:
    - (1) The seasonal system has not been required to issue a boil order in accordance with Env-Dw 709.19 in the preceding 12 months and has a clean compliance history; and
    - (2) A level II assessment conducted by an individual who meets the qualifications in Env-Dw 720.09 during current operation season, confirms that the seasonal system is:
      - a. Supplied solely by one or more protected water sources; and
      - b. Free of sanitary defects.
- (d) The department shall notify the owner of the seasonal system in writing of its decision on the request to reduce the number of total coliforms samples taken. If the request is denied, the notice shall specify the reason(s) for the denial.
- (e) If the request is approved, the department shall designate that monitoring be conducted during periods of highest demand or highest vulnerability, based on review of the system configuration and flow rates.
- (f) Any seasonal system that has been authorized to monitor quarterly shall be returned to standard monthly monitoring if the conditions in Env-Dw 709.09 are met.

(g) The approval for reduced monitoring frequency shall expire at the end of the seasonal system's operating season, at which time the system shall return to standard monitoring for total coliform per Env-Dw 709.11.

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 709.13 Sampling for Total Coliforms When Turbidity Exceeds One NTU.

- (a) The owner of a PWS using surface water or groundwater under the direct influence of surface water that is not subject to the filtration requirements in Env-Dw 716 shall collect at least one total coliform sample at or before the first service connection each day the turbidity level of the source water, measured as specified in 40 CFR 141.22, exceeds one NTU.
  - (b) The sample shall be analyzed for turbidity and for the presence of total coliforms.
- (c) When one or more turbidity measurements in any day exceed one NTU, the system owner shall collect a total coliform sample within 24 hours of the first NTU exceedance, unless the department determines that the system cannot have the sample analyzed within 30 hours of collection.

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 709.14 Adjusting Total Coliform Sampling Frequency After a Sanitary Survey.

- (a) The department shall review the results of each sanitary survey undertaken pursuant to Env-Dw 720 with respect to bacterial contamination to determine whether:
  - (1) The wellhead is physically inaccessible;
  - (2) The wellhead is subject to flooding due to conditions that cannot be corrected within the time limit specified in Env-Dw 720; or
  - (3) Any other condition exists that would increase the potential for bacterial contamination.
- (b) If the PWS does not already take total coliform samples each month and the department determines that any of the conditions listed in (a), above, is present, the department shall require the PWS to take total coliform samples monthly.
- (c) In conducting a sanitary survey of a system using groundwater, information on sources of contamination within the delineated wellhead protection area that was collected in the course of developing and implementing a wellhead protection program for the groundwater source shall be considered instead of collecting new information, if the information was collected since the last time the system was subject to a sanitary survey.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15 (from Env-Dw 709.13)

## Env-Dw 709.15 Repeat Monitoring.

(a) Subject to (b) and (c), below, if a routine sample is positive for total coliforms the PWS owner shall collect a set of not less than 3 repeat samples as specified in (d) and (f), below, for each routine sample that was positive for total coliforms within 24 hours after being notified of the positive result.

- (b) If one or more of the samples in a set of repeat samples is positive for total coliforms, the PWS owner shall continue to collect additional sets of 3 samples every 24 hours until either:
  - (1) Total coliforms are not detected in any sample in a set of 3 repeat samples; or
  - (2) The coliform treatment technique trigger specified in Env-Dw 709.22 has been exceeded.
- (c) The department shall extend the 24-hour limit if the department determines that the PWS owner cannot collect the repeat samples within 24 hours or when the samples cannot be analyzed within 30 hours of being collected. In determining the amount of the time extension, the department shall evaluate the need to protect public health against the owner's inability to collect the samples within the 24-hour limit.
- (d) Subject to Env-Dw 709.16, the PWS owner shall collect one repeat sample from each of the following locations:
  - (1) The sampling tap where the original sample that was positive for total coliforms was collected;
  - (2) A tap within 5 service connections upstream of the original sampling site; and
  - (3) A tap within 5 service connections downstream of the original sampling site.
- (e) The PWS owner shall collect a source sample to meet the triggered monitoring requirements specified in Env-Dw 717, if applicable.
  - (f) The PWS owner shall collect all samples in a set of repeat samples on the same day.
- (g) Except as provided in Env-Dw 709.17, the department shall not waive the requirement for a system owner to collect repeat samples as specified in (a) through (f), above.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10 ss by #10771, eff 2-1-15 (from Env-Dw 709.10)

## Env-Dw 709.16 Alternate Plan for Repeat Monitoring Locations.

- (a) The owner of a PWS who is required to take repeat samples who wishes to establish alternative sampling locations believed to be more representative of a likely pathway of contamination shall submit a proposed plan in writing to the department for approval. Submission of a proposed plan shall not extend the time limit for taking the samples established in Env-Dw 709.15(a) or (b).
  - (b) A proposed plan submitted under (a), above, shall include:
    - (1) The system's name and PWS identifier;
    - (2) The name, daytime telephone number, and, if available, e-mail address for the system's representative who can be contacted by the department regarding the request;
    - (3) If the owner is proposing alternative fixed locations, the specific locations proposed; and
    - (4) If the owner is proposing situation-based sampling, a proposed standard operating procedure (SOP) for determining the location where the repeat samples will be taken to verify and determine the extent of potential contamination of the distribution system area based on the specific situation.
- (c) The department shall respond to the proposed plan in writing. If the plan is not approved, the department's response shall specify the reason(s) why.

- (d) The department shall approve the proposed plan if the department determines that the proposed alternative locations or SOP will result in samples that are more likely to verify and determine the extent of potential contamination of the distribution system area based on specific situations than the existing locations or SOP, as applicable.
- (e) If the department determines that the proposed alternative locations or SOP would be acceptable with modifications, the department shall inform the owner of such modifications. If the department makes modifications, the owner shall either implement the plan as modified or take samples in the location(s) specified in Env-Dw 709.15.

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 709.17 Additional Routine Sampling Requirements.

- (a) Subject to (c) through (f), below, if a PWS owner who is required to collect samples on a quarterly or semi-annual schedule has one or more total coliform-positive samples and the department does not invalidate the sample result(s) under Env-Dw 709.18, the owner shall collect at least 3 additional total coliform routine samples at sites that are representative of water throughout the distribution system, including all of the sample site(s) listed in the sampling schedule, during the next month the PWS provides water to the public.
- (b) The additional routine samples required by (a), above, shall not be considered for purposes of the triggered monitoring requirements specified in Env-Dw 717.
- (c) The department shall waive the requirement to collect 3 additional routine samples the next month the PWS provides water to the public if the department:
  - (1) Performs a site visit before the end of the next month the PWS provides water to the public to determine whether additional monitoring or corrective action is needed or otherwise determines why the sample was positive for total coliforms; and
  - (2) Establishes that the PWS has corrected the problem or will correct the problem before the end of the next month the PWS provides water to the public.
- (d) Once a determination is made to waive the requirement to collect the 3 additional routine samples, the department shall:
  - (1) Document the decision in writing, have it approved and signed by the director of the department's division of water, or designee, and make this document available to EPA and the public; and
  - (2) Describe the specific cause(s) of the positive total coliforms sample result(s) and what action(s) the PWS owner has taken and/or will take to correct the problem.
- (e) As a condition of receiving a waiver of the 3 additional routine sample monitoring requirement, the PWS owner shall:
  - (1) Not seek a waiver of the requirement to collect 3 additional routine samples the next month that the PWS provides water to the public solely on the grounds that all repeat samples are negative for total coliforms; and
  - (2) Continue to take at least one routine sample before the end of the next month the PWS provides water to the public and use it to determine compliance as specified in Env-Dw 702, unless the department has determined that the PWS owner has corrected the contamination problem

before the set of repeat samples required by Env-Dw 709.15 was collected, and all repeat samples are negative for total coliforms.

(f) Results of all routine and repeat samples not invalidated by the department shall be included in determining compliance as specified in Env-Dw 702.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15 (from Env-Dw 709.11)

# Env-Dw 709.18 Invalidation of Total Coliform Samples.

- (a) A sample result that is positive for total coliforms or  $\underline{E}$ .  $\underline{coli}$  that is invalidated under this section shall not be used to meet the minimum monitoring requirements of this part.
- (b) The department shall invalidate a sample result that is positive for  $\underline{E}$ .  $\underline{coli}$  only if the laboratory establishes that improper sample analysis caused the positive result.
- (c) Subject to (d), below, the department shall invalidate a sample result that is positive for total coliforms only if:
  - (1) The laboratory establishes that improper sample analysis caused the positive result;
  - (2) The department, on the basis of the results of repeat samples collected as required by Env-Dw 709.15, and source water samples collected per Env-Dw 717, if required, determines that the positive sample resulted from a domestic or other non-distribution system plumbing problem, provided that all repeat samples collected at the same tap as the original positive sample are also positive for total coliforms, and all other repeat and source water samples are negative for total coliforms; or
  - (3) The department has substantial grounds to believe that a positive total coliform result is due to a circumstance or condition that does not reflect water quality in the distribution system, provided the PWS owner collects all repeat samples required under Env-Dw 710.15 and uses them to determine whether a treatment trigger as specified in Env-Dw 709.22 has been exceeded.
- (d) The department shall not invalidate a total coliform-positive sample result on the basis of repeat samples if:
  - (1) All of the repeat samples are negative for total coliforms;
  - (2) Any source water sample collected pursuant to Env-Dw 717 is total coliform positive, unless the system provides continuous disinfection; or
  - (3) The PWS has only one service connection.
- (e) If a sample is invalidated for the reason specified in (c)(1), above, the PWS owner shall collect another sample from the same sampling point as the original sample within the same monitoring period after being notified of the sample invalidation.
- (f) If the department invalidates a total coliform sample result for the reason specified in (c)(3), above, then:
  - (1) The department shall document the rationale for the decision in writing and have the document approved and signed by the director of the department's division of water, or designee;

- (2) The written documentation shall state the specific cause of the positive sample, and what action(s) the PWS owner has taken or will take to correct the problem; and
- (3) The department shall make the document available to the EPA and the public.
- (g) A laboratory shall invalidate a total coliform sample result where total coliforms are not detected if the sample:
  - (1) Produces turbid culture in the absence of gas production using an analytical method where gas formation is examined, such as the multiple-tube fermentation technique;
  - (2) Produces turbid culture in the absence of an acid reaction in the presence-absence coliform test; or
  - (3) Exhibits confluent growth or produces colonies too numerous to count with an analytical method using a membrane filter.
  - (h) If a sample is invalidated for a reason specified in (g), above, the PWS owner shall:
    - (1) Collect another sample from the same sampling point as the original sample within 24 hours of being notified of the sample invalidation;
    - (2) Have the sample analyzed for the presence of total coliforms; and
    - (3) Continue to resample within 24 hours and have the samples analyzed until a valid result is obtained.
- (i) The department shall extend the 24-hour limit established in (h), above, if the PWS owner is unable to collect the sample within 24 hours for reasons that are beyond the owner's control.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15 (from Env-Dw 709.12)

# Env-Dw 709.19 Follow-up Testing for E. coli; Boil Orders.

- (a) If any sample is positive for total coliforms, the PWS owner shall analyze, or request the laboratory to analyze, the total coliform-positive culture medium for <u>E</u>. <u>coli</u>.
  - (b) If E. coli are present or the E. coli MCL is exceeded per Env-Dw 702.02(b), the PWS owner shall:
    - (1) Issue a boil order advising all consumers that the water should be vigorously boiled for not less than 2 minutes before human consumption; and
    - (2) Notify the department by the end of the work day in which the PWS owner is notified of the test result, unless the PWS owner is notified of the result after the department office is closed, in which case the PWS owner shall notify the department before noon on the next business day.
  - (c) Boil order language shall:
    - (1) Clearly explain the need to boil water vigorously for a minimum of 2 minutes prior to using the water for any purpose associated with human or animal consumption, which includes but is not limited to drinking, brushing teeth, washing vegetables, food preparation, dishwashing, making infant formula, or making ice;

- (2) Provide the name, title, and telephone number of the PWS contact who can address any questions or concerns; and
- (3) State that further notification will be issued when the boil order has been lifted.
- (d) Notification to PWS consumers of the boil order shall be in accordance with the public notification requirements for acute violations as specified in Env-Dw 800.
- (e) For all PWS, the PWS owner also shall post the boil order in a conspicuous place in areas frequented by the public, which shall include electronic postings such as on the home page of the internet site for the owner or PWS, if the owner or PWS has an internet site.
  - (f) The PWS owner shall not lift the boil order unless:
    - (1) A minimum of 2 consecutive sets of samples, collected at least 24 hours apart, show an absence of total coliforms and  $\underline{E}$ .  $\underline{\operatorname{coli}}$ , where a set of samples consists of the greater of 3 samples or the number of routine samples required by Env-Dw 709.05, to a maximum of 10 samples, at sampling points identified in consultation with the department;
    - (2) The department is satisfied that the PWS owner has undertaken all reasonable efforts to identify and correct the source of contamination, by conducting an inspection equivalent to a level II assessment and correcting all sanitary defects; and
    - (3) The department notifies the PWS owner that the boil order may be lifted.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15 (from Env-Dw 709.14)

## Env-Dw 709.20 Relief from Boil Order Requirements.

- (a) If <u>E</u>. <u>coli</u> are present only in specific, hydraulically-isolated segments of a PWS service area, a PWS owner may submit a written request to the department to approve a boil order that is limited to customers in the service areas that are directly affected.
- (b) The department shall approve a request submitted pursuant to (a), above, if it agrees with the PWS owner's assessment that the affected area is hydraulically isolated.
- (c) The owner of a PWS may submit a written request to the department to waive the requirement to issue a boil order if the PWS owner:
  - (1) Has submitted a minimum of 3 routine total coliform samples per month for bacteria analysis;
  - (2) Was notified that only one sample in the sampling set shows the presence of  $\underline{E}$ .  $\underline{coli}$  and all other samples in the set show an absence of total coliforms;
  - (3) Concludes, based on an inspection performed by the system's primary certified operator immediately after being notified of the detection, that there are no apparent causes for the detection of <u>E</u>. <u>coli</u>;
  - (4) If applicable, has provided continuous treatment of all active water sources by addition of a chemical disinfectant during the 30 days prior to the samples that tested positive and has continuously maintained detectable disinfectant residuals at all times and locations for at least the prior 6 months, as verified by monitoring performed under Env-Dw 715; and

- (5) Submits the written request to waive the boil order requirement within 4 hours of receiving notice from the department that a boil order is required.
- (d) The department shall waive the requirement to issue a boil order if it determines that all of the requirements specified in (c), above, have been met, subject to the following conditions:
  - (1) The PWS owner shall:
    - a. Take repeat samples as specified in Env-Dw 709.15 within 6 hours of being notified of the positive result; and
    - b. Submit the sample results showing the absence of total coliforms and  $\underline{E}$ .  $\underline{coli}$  to the department within 24 hours of taking the samples; and
  - (2) The department shall inspect the PWS within 24 hours of initial notification, focusing on the effectiveness of the disinfection process and the circumstances of the samples that initially indicated the presence of E. coli.
- (e) The department shall require the PWS to issue a boil order within 12 hours of notification if the system fails to comply with the conditions specified in (d)(1), above, or the department's inspection pursuant to (d)(2), above, identifies a possible cause of the initial indication of fecal coliforms or  $\underline{E}$ . coli.

Source. #10771, eff 2-1-15 (from Env-Dw 709.15)

Env-Dw 709.21 Sample Volume and Collection Protocol.

- (a) A standard sample volume of 100 ml shall be used for bacteria analysis, regardless of the analytical method used.
  - (b) The time from sample collection to initiation of test medium incubation shall not exceed 30 hours.
  - (c) Bacteria samples shall be analyzed for the presence or absence of total coliforms and E. coli.
  - (d) Bacteria samples may be analyzed for total coliform density.
- (e) Unless a PWS disinfects on a regular and continuous basis, chlorine or other disinfectants shall not be added to the PWS within one week prior to the time when bacterial test samples are scheduled to be collected. If disinfection is necessary to protect public health within one week of a bacterial test, such treatment shall be described on the sample identification form. Failure to report disinfection occurring within one week on the sample information form shall be considered misrepresentation of the sample.

Source. #10771, eff 2-1-15 (from Env-Dw 709.16)

Env-Dw 709.22 Coliform Assessment Triggers and Required Actions.

- (a) A PWS owner shall conduct an assessment in accordance with Env-Dw 720.07 if an assessment is triggered as specified in (b) or (c), below.
  - (b) The level I assessment shall be triggered if:
    - (1) For a system collecting fewer than 40 samples per month, the system has 2 or more total coliform-positive samples in the same month;
    - (2) For a system collecting 40 or more samples per month, more than 5.0% of the samples collected during a month are total coliform-positive; or

- (3) The system fails to take every required repeat sample after any single total coliform-positive sample result.
- (c) The level II assessment shall be triggered if:
  - (1) An E. coli MCL violation as specified in Env-Dw 702.02 occurs; or
  - (2) A second level I assessment is triggered within 12 months of a prior level I or level II assessment, unless the department has:
    - a. Identified a likely reason that the samples that caused the first level I treatment technique trigger were total coliform-positive; and
    - b. Determined that the owner has corrected the problem.

Source. #10771, eff 2-1-15

# Env-Dw 709.23 Bacteria Violations.

- (a) An E. coli MCL violation shall exist if:
  - (1) Any routine sample tests positive for total coliforms and is followed by any repeat sample that tests positive for  $\underline{E}$ .  $\underline{coli}$ ;
  - (2) Any routine sample tests positive for  $\underline{E}$ . coli and any of the repeat samples test positive for total coliforms;
  - (3) The owner fails to collect all required repeat samples following an  $\underline{E}$ . coli-positive routine sample; or
  - (4) The owner fails to test for  $\underline{E}$ .  $\underline{coli}$  when any repeat sample tests positive for total coliforms.
- (b) A treatment technique violation shall exist when a system exceeds a trigger specified in Env-Dw 709.22 and the owner fails to conduct the required assessment or corrective action within the time specified in Env-Dw 720.
  - (c) A monitoring violation shall exist if the owner:
    - (1) Fails to collect every required routine or additional routine sample in a compliance period; or
    - (2) Fails to analyze for E. coli following a routine total coliform-positive result.
  - (d) A reporting violation shall exist if the owner:
    - (1) Fails to submit a monitoring report or completed assessment form after the system properly conducts monitoring or assessment within the time period specified; or
    - (2) Fails to notify the department of an  $\underline{E}$ .  $\underline{\text{coli}}$ -positive sample required by Env-Dw 719 within the time period specified.

Source. #10771, eff 2-1-15 (from Env-Dw 709.18)

# Env-Dw 709.24 Reporting and Notification of Violations.

(a) The owner of a PWS at which the MCL specified in Env-Dw 702 for E. coli is exceeded shall:

- (1) Report the violation to the department as soon as possible by telephone or email within 24 hours of receiving the results; and
- (2) Notify the public in accordance with Env-Dw 800.
- (b) A PWS owner who has a total coliform monitoring violation as specified in Env-Dw 709.23 shall:
  - (1) Report the monitoring violation to the department by telephone, email, or first class mail within 10 days after the system discovers the violation; and
  - (2) Notify the public in accordance with Env-Dw 800.
- (c) A PWS owner who has a treatment technique violation as specified in Env-Dw 709.23 shall:
  - (1) Report the treatment technique violation to the department by telephone or email as soon as the owner learns of the violation but no later than the end of the next business day; and
  - (2) Notify the public in accordance with Env-Dw 800.
- (d) A PWS owner who has a reporting violation as specified in Env-Dw 709.23 shall:
  - (1) Report the reporting violation to the department by telephone or email as soon as the owner learns of the violation; and
  - (2) Notify the public in accordance with Env-Dw 800.

Source. #10771, eff 2-1-15 (from Env-Dw 709.19)

Env-Dw 709.25 <u>Recordkeeping</u>. If the department approves an extension of the 24 hour limit to take repeat samples per Env-Dw 709.15(c), the owner of the system shall maintain a record of the approval for at least 5 years from the date of the extension.

Source. #10771, eff 2-1-15

## PART Env-Dw 710 MONITORING FOR RADIONUCLIDES

Env-Dw 710.01 <u>Purpose</u>. The purpose of this part is to establish procedures and criteria for the monitoring of radionuclides in drinking water.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 710.02 Applicability.

- (a) The requirements of this part other than Env-Dw 710.05(c) shall apply to community water systems (CWS).
- (b) The requirements specified in Env-Dw 710.05(c) shall apply to non-transient non-community water systems.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 710.03 Definitions.

- (a) "Alpha particle" means a positively charged atomic particle consisting of 2 neutrons and 2 protons.
- (b) "Analytical gross alpha" means total gross alpha activity as measured by the EPA approved methodologies specified in 40 CFR 141.25, and includes but is not limited to alpha particles from radium-226, uranium, thorium, and polonium, and excludes radon.
  - (c) "Compliance gross alpha" means the analytical gross alpha activity minus the uranium activity.
  - (d) "Radionuclides" means alpha particles, beta particles, or both.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700); ss by #12819, eff 6-28-19

# Env-Dw 710.04 Frequency and Sampling Location for Radionuclides.

- (a) The O/O of a CWS shall collect a minimum of one water sample at each entry point to the distribution system and after any centralized radionuclide treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01, at the frequency specified in the sampling schedule.
- (b) The CWS O/O shall collect each sample at the specified sampling point unless the O/O requests, and the department approves, an alternative sampling point pursuant to Env-Dw 708.04.
- (c) If the CWS draws water from more than one source and the sources are combined before distribution, the CWS O/O shall sample the blended water, provided it meets the criteria established in Env-Dw 708.05.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700); ss by #12819, eff 6-28-19

# Env-Dw 710.05 Radionuclide Monitoring Requirements for New Systems or Sources.

- (a) The O/O of a new CWS or an existing CWS using a new source of supply shall collect and analyze:
  - (1) One sample for radon prior to using water from the new source; and
  - (2) Quarterly samples for compliance gross alpha, combined radium-226 and radium-228, and uranium as specified in the schedule established pursuant to Env-Dw 708.
  - (b) Initial monitoring shall:
    - (1) Begin within the first quarter that the new system or source first provides water to the system; and
    - (2) Be performed in accordance with Env-Dw 710.06.

(c) The O/O of a new non-transient, non-community water system or an existing non-transient, non-community water system using a new source of supply shall collect and analyze one sample for compliance gross alpha, combined radium-226 and radium-228, and uranium prior to using water from the new <u>Source</u>.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 710.06 <u>Initial Monitoring for Radionuclides</u>.

- (a) A CWS O/O shall collect 4 consecutive quarterly samples for compliance gross alpha, combined radium-226 and radium-228, and uranium at all sampling points identified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) The samples required by (a), above, shall be taken in the quarters designated in the sampling schedule established pursuant to Env-Dw 708.01 during each compliance period.
- (c) If the results of the samples from the first 2 quarters are below the detection limits as specified in Env-Dw 710.12(b), the CWS O/O may submit a written request to the department for the monitoring frequency to be reduced.
  - (d) A written request submitted pursuant to (c), above, shall contain the following:
    - (1) The name of the CWS;
    - (2) The PWS identifier for the CWS; and
    - (3) A summary of the historical radionuclide data from the system and nearby systems, when available.
- (e) Upon determination by the department that the results are all below the detection limits, as listed in Table 710-2, the final 2 quarters of the initial monitoring shall be dismissed and the monitoring frequency shall be as specified in Env-Dw 710.08.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 710.07 <u>Increased Monitoring for Radionuclides</u>. The CWS O/O shall collect and analyze quarterly samples:

- (a) At any sampling point where the running annual average of the monitoring results for radionuclides at the sampling point is above the applicable MCL; and
  - (b) After any centralized treatment installed to treat a radionuclide result above the MCL.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700); ss by #12819, eff 6-28-19

# Env-Dw 710.08 Reduced Monitoring for Radionuclides.

(a) The monitoring frequency for radionuclides shall be based on the average of the results of the initial monitoring required pursuant to Env-Dw 710.06, as specified in Table 710-1 below:

Table 710-1: Monitoring Frequency Based on Radionuclide Concentrations

Compliance Gross Alpha (pCi/L)

Average Monitoring Result	Frequency
13.5 to 15	Yearly
7.6 to 13.4	Every 3 years
3 to 7.5	Every 6 years
less than 3	Every 9 years

Radium 226 plus Radium-228 (pCi/L)

Average Monitoring Result	Frequency
4.5 to 5	Yearly
2.6 to 4.4	Every 3 years
1.0 to 2.5	Every 6 years
less than 1.0	Every 9 years

# Uranium (µg/L)

Average Monitoring Result	Frequency
26.5 to 30	Yearly
15.5 to 26.4	Every 3 years
1 to 15.4	Every 6 years
less than 1	Every 9 years

- (b) Subsequent sample results shall be used to establish future sampling schedules using the frequencies in Table 710-1.
- (c) Based on review of the submitted results, the department shall modify the system's schedule in accordance with Table 710-1 and notify the CWS O/O in writing of the new monitoring requirements.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 710.09 Monitoring and Compliance Requirements for Beta Particle and Photon Radioactivity for Vulnerable Systems. To determine compliance with the MCLs in Env-Dw 703.03 for beta particle and photon radioactivity, the CWS O/O shall comply with 40 CFR 141.26(b).

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 710.10 Compliance Determinations for Radionuclides.

(a) The department shall determine compliance with Env-Dw 703 based on the analytical results obtained at each sampling point.

- (b) Subject to (k) below, for a CWS at which the required monitoring is annual or less frequently, if the result of a sample from one sampling point exceeds an MCL, the CWS O/O shall collect a confirmation sample within 14 days.
  - (c) The confirmation sample shall:
    - (1) Be a new sample collected under the same contributing conditions and at the same sampling point as the original sample; and
    - (2) Be analyzed within 45 days of collection.
- (d) The results of the confirmation sample shall be averaged with the initial sample results and the average shall be used to determine compliance.
  - (e) If the average exceeds the MCL, the CWS shall be deemed in violation of the MCL.
- (f) To determine compliance with the MCLs listed in Env-Dw 703, averages of data shall be used, rounded to the same number of significant figures as the MCL for the substance in question.
- (g) For a CWS at which the required monitoring is more frequent than once per year, the department shall determine compliance with the MCL based on a running annual average at each sampling point, as follows:
  - (1) If the running annual average of the sample results at any sampling point is greater than the MCL, then the CWS shall be deemed out of compliance with the MCL; and
  - (2) If any sample result is more than 4 times the MCL at any sample point, the CWS shall be deemed out of compliance with the MCL immediately.
- (h) The CWS O/O shall include the results of all samples taken and analyzed to determine compliance, even if that number is greater than the minimum required.
- (i) If a sample result is less than the detection limit, the result shall be deemed to be zero for purposes of calculating the running annual average.
  - (j) If the MCL for the radionuclides set forth in Env-Dw 703 is exceeded, the CWS O/O shall notify:
    - (1) The department, pursuant to Env-Dw 710.11; and
    - (2) The public, as required by Env-Dw 800.
- (k) If results from the sampling point or the contributing sources have historically demonstrated the presence of the radionuclide, then:
  - (1) A confirmation sample shall not be required; and
  - (2) The monitoring frequency for the approved sampling point shall be increased to quarterly for that contaminant.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 710.11 Reporting and Recordkeeping for Radionuclides.

- (a) A CWS O/O shall report the monitoring results for regulated radionuclides as specified in Env-Dw 719.
- (b) Any CWS O/O who fails to report monitoring results to the department as required by (a), above, shall notify the public as required by Env-Dw 800.
- (c) The CWS O/O shall submit the monitoring results in the same unit of measurement and number of significant figures in which the MCL is expressed, as set forth in Table 703-1.
- (d) The CWS O/O shall maintain records in accordance with Env-Dw 718 and report results in accordance with Env-Dw 719.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 710.12 Sampling Protocol and Laboratory Analytical Methods.

(a) The sampling protocol for alpha and beta radionuclides shall be those set forth in 40 CFR 141, 142, or 143, as applicable.

Table 710-2: Detection Limits for Radionuclides

(b) Detection limits for radionuclides shall be those set forth in Table 710-2, below:

Contaminant	<b>Detection Limit</b>
Analytical Gross Alpha	3 pCi/L
Cesium-134	10 pCi/L
Compliance Gross Alpha	3 pCi/L
Gross Beta	4 pCi/L
Iodine-131	1 pCi/L
Radium-226	1 pCi/L
Radium-228	1 pCi/L
Strontium-89	10 pCi/L
Strontium-90	2 pCi/L
Tritium	1,000 pCi/L
Uranium	1 μg/L
Other radionuclides	1/10 of the applicable limit

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# PART Env-Dw 711 MONITORING FOR INORGANIC CHEMICALS

# Env-Dw 711.01 Applicability.

(a) The O/O of a community water system (CWS) or non-transient, non-community water system (NTNC) shall conduct monitoring to determine compliance with the MCLs for inorganics specified in Env-Dw 704.02.

(b) The O/O of a transient, non-community water system shall conduct monitoring to determine compliance with the nitrate and nitrite MCLs specified in Env-Dw 704.02, in accordance with Env-Dw 711.18 through Env-Dw 711.28.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.02 Monitoring Location for Regulated Inorganics for Groundwater Systems.

- (a) The sampling point for a PWS using groundwater (groundwater system) shall be at each entry point to the distribution system, as specified in the sampling schedule established pursuant to Env-Dw 708.01, so as to be representative of each well after treatment.
- (b) The O/O of a groundwater system shall collect each sample at the specified sampling point. If the O/O believes that conditions make another sampling point more representative of each source or treatment plant, the O/O shall request a change in sampling point pursuant to Env-Dw 708.04.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.03 Monitoring Location for Regulated Inorganics for Other Systems.

- (a) The O/O of a PWS using surface water or a combination of surface water and groundwater shall take a minimum of one sample at each sampling point specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) The sampling points specified in the schedule shall include every entry point to the distribution system:
  - (1) After any application of treatment; or
  - (2) In the distribution system at a point which is representative of each source after treatment.
- (c) The O/O of a system specified in (a), above, shall collect each sample at the specified sampling point. If the O/O believes that conditions make another sampling point more representative of each source or treatment plant, the O/O shall request a change in the sampling point pursuant to Env-Dw 708.04.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

## Env-Dw 711.04 Frequency of Monitoring for Regulated Inorganics.

- (a) The O/O of a groundwater system shall collect one sample at each sample point during each 3-year compliance period.
- (b) The O/O of a surface water system, or combined surface/groundwater system, shall collect one sample at each sample point annually.
- (c) The frequency of monitoring for asbestos shall be as specified in Env-Dw 711.09 through Env-Dw 711.17.

- (d) The frequency of monitoring for nitrate and nitrite shall be as specified in Env-Dw 711.18 through Env-Dw 711.26.
- (e) The department shall waive the requirement for a community water system or non-transient, non-community water system to monitor for cyanide if the department determines that the PWS is not vulnerable to cyanide due to a lack of any industrial source(s) within the wellhead contributing area.
- (f) If the cyanide monitoring requirement is waived pursuant to (e), above, the O/O of each affected water system shall take not less than one sample every 9 years.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.05 <u>Sampling Requirements When Concentrations of Regulated Inorganics are Greater</u> Than or Equal To 50% of the MCL.

- (a) Subject to (k), below, if the concentration of any regulated inorganic in a representative sample is greater than or equal to 50% of the applicable MCL listed in Env-Dw 704, the O/O shall collect a confirmation sample as specified in (b), below.
  - (b) The confirmation sample shall be:
    - (1) A new sample collected under the same contributing conditions and at the same sampling point as the original sample; and
    - (2) Collected within 14 days of the original sample and analyzed for the regulated inorganic(s) that triggered the requirement to collect the confirmation sample.
- (c) The results of the confirmation sample shall be averaged with the initial sample results and the average shall be used to determine compliance with the MCL specified in Env-Dw 704.
- (d) If the average is less than 50% of the MCL listed in Env-Dw 704, the monitoring requirements for that sampling point shall be as specified in Env-Dw 711.04.
- (e) If the average is equal to or greater than 50% of the MCL, the monitoring frequency for that sampling point for that contaminant shall be revised to quarterly beginning in the next quarter.
- (f) The revised monitoring schedule for each source pursuant to (e), above, shall continue until the concentration of the particular regulated inorganic is determined by the department to be reliably and consistently below the MCL as defined in Env-Dw 100.
- (g) After a minimum of one year of quarterly sampling, the O/O may submit in writing a request to the department for the monitoring frequency to be reduced.
  - (h) The written request shall include:
    - (1) The name of the PWS;
    - (2) The PWS identifier for the PWS;
    - (3) A summary of all quarterly sampling results and results of any additional sampling undertaken by the O/O; and
    - (4) An explanation of whether the PWS is operating any type of treatment to reduce the amount of regulated inorganics.

- (i) The department shall reinstate the monitoring frequency specified in Env-Dw 711.04 upon determining that:
  - (1) Based on 4 consecutive quarterly samples, the concentration of the regulated inorganic is reliably and consistently below the MCL; and
  - (2) The PWS is not operating any type of treatment to reduce the amount of the regulated inorganics.
- (j) If the monitoring frequency is reduced pursuant to (i), above, subsequent samples shall be collected during the quarter(s) which previously resulted in the highest analytical result.
- (k) If results from the sampling point or the contributing sources have historically demonstrated the presence of regulated inorganics, then:
  - (1) A confirmation sample shall not be required; and
  - (2) The monitoring frequency for the approved sampling point shall be increased to quarterly for that contaminant.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.06 <u>Sampling Protocol for Regulated Inorganics</u>. An O/O shall conduct sample collection for the regulated inorganics listed in Env-Dw 704 using the sample preservation, container, and maximum holding time procedures specified in 40 CFR 141, 142, or 143, as applicable.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.07 Compliance Determination for Regulated Inorganics.

- (a) For a PWS at which regulated inorganics are monitored at a frequency greater than annually, the department shall determine compliance with the MCL specified in Env-Dw 704 by a running annual average, as defined in Env-Dw 100, at each sampling point.
- (b) If the department determines that the running annual average at any sampling point is greater than the MCL as specified in Env-Dw 704, then the system shall be deemed out of compliance.
- (c) If any one sample is more than 4 times the MCL specified in Env-Dw 704, then the system shall be out of compliance.
- (d) Any sample result which is below the detection limit shall be calculated as zero for the purpose of determining the running annual average.
- (e) If a system is monitoring annually or less frequently, the system shall be deemed out of compliance with the MCLs if the level of a regulated inorganic at any sampling point is greater than the MCL. If confirmation samples are required by Env-Dw 711.05, the determination of compliance shall be based on the average of the initial and confirmation samples.

- (f) If a PWS has a distribution system with portions that are hydraulically separate from other parts of the distribution system, then:
  - (1) Only that part of the system in which the MCL specified in Env-Dw 704 is exceeded shall be out of compliance; and
  - (2) The O/O may request approval from the department pursuant to Env-Dw 801.15 to limit the public notice to the users of only that portion of the system which is out of compliance.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; and by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.08 <u>Reporting for Regulated Inorganics</u>. An O/O shall report regulated inorganics in accordance with Env-Dw 719.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.09 <u>Monitoring for Asbestos</u>. Asbestos monitoring shall be in accordance with Env-Dw 711.11 through Env-Dw 711.17, unless a waiver is obtained pursuant to Env-Dw 711.10.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

## Env-Dw 711.10 Waiver of Monitoring for Asbestos.

- (a) An O/O may request a waiver of asbestos monitoring as specified in (b), below, if the O/O believes the PWS is not vulnerable to asbestos contamination.
- (b) To request a waiver, the O/O shall submit to the department a written request containing the following information:
  - (1) The name of the PWS;
  - (2) The PWS identifier for the PWS; and
  - (3) An explanation of why a waiver is warranted, based on the factors specified in (c), below, with documentation and data to support the explanation, as appropriate to the factor.
  - (c) A PWS shall be deemed vulnerable to asbestos contamination if the PWS:
    - (1) Has a water source that is at risk for asbestos contamination, for instance due to proximity to an asbestos disposal site or other source of asbestos; or
    - (2) Uses asbestos-cement pipe for finished water distribution and the water is corrosive.
- (d) The department shall grant a waiver to a PWS if the department determines that the PWS is not vulnerable to asbestos.

(e) A waiver shall remain in effect for the remainder of the 3-year compliance period. At the end of the compliance period, if the O/O wishes the waiver to continue, the O/O shall request a new waiver.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.11 <u>Duration and Frequency of Routine Monitoring for Asbestos</u>. The O/O of each community water system and non-transient, non-community water system shall monitor once for asbestos during the 3-year compliance period that it begins operation and every 9 years thereafter.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.12 Monitoring Location for Asbestos.

- (a) The O/O of a PWS that is vulnerable to asbestos contamination due solely to corrosion of asbestos-cement pipe shall collect one sample at a tap served by asbestos-cement pipe under conditions where asbestos contamination is most likely to occur.
- (b) The O/O of a PWS that is vulnerable to asbestos contamination due solely to the potential for source water contamination shall monitor as for general regulated inorganics in accordance with Env-Dw 711.01 through Env-Dw 711.08.
- (c) The O/O of a PWS that is vulnerable to asbestos contamination both to corrosion of asbestos-cement pipe and the potential for source water contamination shall collect one sample at a tap served by asbestos-cement pipe under conditions where asbestos contamination is most likely to occur.
- (d) The department shall establish the sampling point in the sampling schedule established pursuant to Env-Dw 708.01 after conferring with the O/O relative to appropriate factors such as the amount of asbestos cement pipe and the age of the pipe.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.13 Monitoring When the MCL for Asbestos is Exceeded.

- (a) The O/O of a PWS at which the MCL for asbestos specified in Env-Dw 704 is exceeded shall monitor for asbestos quarterly beginning in the next calendar quarter after the initial violation occurred.
- (b) The O/O may submit to the department a written request to reduce the asbestos monitoring frequency after:
  - (1) A minimum of one year of quarterly sampling for surface water systems; and
  - (2) A minimum of 2 quarters of sampling for groundwater systems.
  - (c) A request submitted pursuant to (b), above, shall include:
    - (1) The name of the PWS;
    - (2) The PWS identifier for the PWS;

- (3) A summary of all quarterly sampling results; and
- (4) An explanation of whether the PWS is operating any type of treatment to reduce the amount of asbestos.
- (d) The department shall decrease the quarterly monitoring requirement to the frequency specified in Env-Dw 711.11 only if the department determines that:
  - (1) The PWS is not operating any type of treatment to reduce the amount of asbestos; and
  - (2) The amount of asbestos in the water being delivered to persons served by the system is reliably and consistently below the MCL as defined in Env-Dw 100.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.14 Confirmation Sampling for Asbestos.

- (a) Where the results of sampling for asbestos indicate that the concentration of asbestos is greater than or equal to 50% of the MCL, the O/O shall:
  - (1) Collect a confirmation sample within 14 days after the initial sample was collected at the same sampling point and under the same contributing conditions; and
  - (2) Have the sample analyzed within 48 hours of collection, as required by 40 CFR 141.23(k)(2).
- (b) Where confirmation samples are taken, compliance shall be determined based on the average of the 2 samples.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.15 <u>Sampling Protocol for Asbestos</u>. Samples to be analyzed for asbestos shall be collected in accordance with the protocol specified in 40 CFR 141.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.16 Reporting for Asbestos. An O/O shall report asbestos monitoring results in accordance with Env-Dw 719.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.17 Compliance for Asbestos.

(a) A compliance determination for asbestos shall be made using the analytical monitoring results obtained at each sampling point.

- (b) For systems conducting monitoring at a frequency greater than annually, the department shall determine compliance with the MCL for asbestos by analyzing a running annual average at each sampling point.
- (c) If the average at any sample point is greater than the MCL, then the system shall be out of compliance.
- (d) If any one sample in (c), above, would cause the running annual average to exceed the MCL, the system shall be out of compliance.
- (e) For a system monitoring annually or less frequently, the system shall be out of compliance with the MCL for asbestos if the level of a contaminant at any sampling point is greater than the MCL. If confirmation samples are required by Env-Dw 711.14, the determination of compliance shall be based on the average of the initial and confirmation samples.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.18 <u>Monitoring and Reporting for Nitrate</u>. The O/O of a community water system, non-transient non-community water system, or transient non-community water system shall:

- (a) Monitor as specified in Env-Dw 711.19 through Env-Dw 711.22 to determine compliance with the MCL for nitrate specified in Env-Dw 704; and
  - (b) Report nitrate monitoring results as specified in Env-Dw 719.

Source. (See Revision Note at #1 chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.19 Frequency of Monitoring for Nitrate; Confirmation Samples.

- (a) The O/O of a community water system, non-transient non-community water system, or transient non-community water system served by groundwater shall monitor annually for nitrate.
- (b) The O/O of a community water system, non-transient non-community water system, or transient non-community water system served by surface water shall monitor for nitrate quarterly for the initial 4 quarters of operation and annually thereafter, subject to (h), below, and Env-Dw 711.20.
- (c) Subject to (d) below, if nitrate sampling results indicate an exceedance of the MCL and the system has no previous detections for nitrate, the O/O shall collect a confirmation sample within 24 hours of the system's receipt of notification of the analytical results of the first sample.
  - (d) Any O/O unable to comply with the 24-hour sampling requirement shall:
    - (1) Immediately notify the consumers served by the system in accordance with Env-Dw 800; and
    - (2) Collect and analyze a confirmation sample within 7 days of notification of the analytical results of the first sample.
- (e) If nitrate sampling results indicate an exceedance of the MCL and the system has previous detections for nitrate, no confirmation sample shall be necessary.

- (f) Subject to (h), below, if nitrate results are 50% to 100% of the MCL the O/O shall collect a confirmation sample within 7 days.
- (g) If a confirmation sample is required pursuant to (c) or (f), above, the results of the initial and confirmation samples shall be averaged to determine compliance.
- (h) If results from the sampling point or the contributing sources have historically demonstrated the presence of nitrate, then:
  - (1) A confirmation sample shall not be required; and
  - (2) The monitoring frequency for the approved sampling point shall be increased to quarterly for that contaminant.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.20 Revised Monitoring for Nitrate.

- (a) The O/O of a community water system using groundwater, a non-transient non-community water system using groundwater, or a transient non-community water system using groundwater shall monitor for nitrate quarterly for at least one year following any one sample in which the concentration is greater than or equal to 50% of the nitrate MCL.
- (b) After a minimum of one year of quarterly sampling, the O/O may submit a written request to the department for the monitoring frequency to be reduced.
  - (c) The written request shall include:
    - (1) The name of the PWS:
    - (2) The PWS identifier for the PWS;
    - (3) A summary of all quarterly sampling results; and
    - (4) An explanation of whether the PWS is operating any type of treatment to reduce the amount of nitrate.
- (d) The department shall approve a reduction in monitoring from quarterly to annually if the department determines that:
  - (1) Based on 4 consecutive quarterly samples, the nitrate levels are reliably and consistently below the nitrate MCL; and
  - (2) The PWS is not operating any type of treatment to reduce the amount of nitrate.
- (e) A surface water system shall return to quarterly monitoring if any one sample is greater than or equal to 50% of the nitrate MCL.

(f) After the initial round of quarterly sampling is completed, each community water system, non-transient non-community water system, and transient non-community system shall collect subsequent annual samples during the quarter in which the highest analytical result was obtained.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.21 <u>General System Evaluation Nitrate Samples</u>. Any nitrate sample collected in addition to the routine or confirmation samples for a PWS shall be used to determine compliance if the sample:

- (a) Is representative of water being supplied to consumers; and
- (b) Exceeds the MCL for nitrate as specified in Env-Dw 704.02.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.22 <u>Sampling Protocol for Nitrate</u>. Samples to be analyzed for nitrate shall be collected in accordance with the protocol specified in 40 CFR 141, 142, or 143, as applicable.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.23 <u>Reporting and Compliance for Nitrate</u>. An O/O shall report for nitrates in accordance with Env-Dw 719.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.24 <u>Monitoring and Reporting for Nitrite</u>. The O/O of a community water system, non-transient non-community water system, or transient non-community water system shall:

- (a) Monitor for nitrite in accordance with Env-Dw 711.25 through Env-Dw 711.28; and
- (b) Report for nitrite in accordance with Env-Dw 719.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.25 Frequency of Monitoring for Nitrite; Confirmation Samples.

- (a) The O/O shall initially monitor for nitrite once in each 3 year compliance period to determine compliance with the MCL for nitrite in Env-Dw 704.
- (b) Subject to (c), below, if nitrite sampling results indicate an exceedance of the MCL and the PWS has no previous detections for nitrite, the O/O shall take a confirmation sample within 24 hours of receipt of notification of the analytical results of the first sample.

- (c) An O/O unable to comply with the 24 hour sampling requirement shall:
  - (1) Immediately notify the persons served by the system in accordance with Env-Dw 800; and
  - (2) Collect and analyze a confirmation sample within 7 days of notification of the analytical results of the first sample.
- (d) If the nitrite sampling results indicate an exceedance of the MCL and the system has previous detections for nitrite, no confirmation sample shall be necessary.
- (e) Subject to (g), below if nitrite results are 50% to 100% of the MCL, the O/O shall collect a confirmation sample within 7 days.
- (f) If a confirmation sample is required pursuant to (b) or (e), above, the results of the initial and confirmation samples shall be averaged in determining compliance.
- (g) If results from the sampling point or the contributing sources have historically demonstrated the presence of nitrite, then:
  - (1) A confirmation sample shall not be required; and
  - (2) The monitoring frequency for the approved sampling point shall be increased to quarterly for that contaminant.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 711.26 Continued and Revised Monitoring for Nitrite.

- (a) After the initial sample, a PWS for which the analytical result for nitrite is less than 50% of the MCL shall monitor for nitrite annually.
- (b) The O/O of a community water system, non-transient non-community water system, or transient non-community water system shall monitor for nitrite quarterly for at least one year following any one sample in which the concentration of nitrite is equal to or greater than 50% of the MCL.
- (c) After a minimum of one year of quarterly sampling, the O/O may submit a written request to the department that the monitoring frequency be reduced.
  - (d) The written request shall include:
    - (1) The name of the PWS;
    - (2) The PWS identifier for the PWS;
    - (3) A summary of all quarterly sampling results; and
    - (4) Confirmation that the PWS is not operating any type of treatment to reduce the amount of nitrite.
- (e) The department shall approve a reduction in monitoring from quarterly to annually if the department determines that:

- (1) Based on 4 consecutive quarterly samples, the nitrite levels are reliably and consistently less than the nitrite MCL; and
- (2) The PWS is not operating any type of treatment to reduce the amount of nitrite.
- (f) An O/O who monitors annually shall collect each subsequent sample during the quarter(s) which previously resulted in the highest analytical results.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.27 <u>General System Evaluation Nitrite Samples</u>. Any nitrite sample collected in addition to the routine or confirmation samples for a PWS shall be used to determine compliance if the sample:

- (a) Is representative of water being supplied to consumers; and
- (b) Exceeds the MCL for nitrite as specified in Env-Dw 704.02.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 711.28 <u>Sampling Protocol for Nitrite</u>. Samples to be analyzed for nitrite shall be collected in accordance with the protocol specified in 40 CFR 141, 142, or 143, as applicable.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

#### PART Env-Dw 712 MONITORING FOR ORGANICS

Env-Dw 712.01 Definitions. For purposes of this part, the following definitions shall apply:

- (a) "Pesticide application area" means any area that is treated with pesticides as defined in Pes 101.21, reprinted in Appendix C, within the past 3 years or are likely to be treated with pesticides within the next 3 years including, but not limited to, golf courses, lawn or landscaped areas, cemeteries, agricultural areas, athletic or recreational fields, commercial food crops, pesticide storage areas, rights-of-way, railroads, and large overhead power lines; and
  - (b) "Source water protection area" means:
    - (1) For groundwater sources, the wellhead protection area as defined in RSA 485-C:2, XVIII, namely "the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield"; and
    - (2) For surface water sources, the surface area draining toward the intake within 4,000 feet of the intake as determined by topographic data and on-site verification.

Source. #12668, eff 1-1-19

# Env-Dw 712.02 Monitoring Frequency for VOC Contaminants.

- (a) The O/O of a community water system or non-transient, non-community water system shall initially monitor for the health-related regulated volatile organic chemical (VOC) contaminants listed in Env-Dw 705.01 on a quarterly basis for one year.
- (b) If no contaminant listed in Env-Dw 705.01 is detected at a PWS during the first year, the O/O shall thereafter monitor annually.
- (c) If one or more contaminants monitored pursuant to (a), above, is detected during the first year, the O/O shall continue to monitor quarterly, subject to (d), below, and Env-Dw 712.05.
- (d) If the monitoring conducted during the first year reveals variations in the source(s) or within the system, the O/O shall increase the monitoring frequency to the frequency that is necessary to accurately identify consumer exposure to the contaminants listed in Env-Dw 705.01.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.01) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.03 Monitoring Location for VOC Contaminants.

- (a) The O/O of a PWS supplied by a groundwater source shall collect at least one sample at every entry point to the distribution system, which entry point shall be representative of each well after treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) The O/O of a PWS supplied by a surface water source or a combination of surface water and groundwater shall collect at least one sample at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (c) If the O/O believes that conditions make another sampling point more representative of a source, treatment plant, or distribution system, the O/O shall request a change in sampling location pursuant to Env-Dw 708.04.
- (d) If a PWS obtains water from more than one source and the sources are combined prior to entering the distribution system, the O/O shall collect the samples at an entry point to the distribution system during periods of normal operating conditions, when water from all sources is being used.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.02) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.04 Confirmation Sampling for VOC Contaminants.

- (a) If a VOC contaminant is detected in a representative sample at a level greater than or equal to the detection limit of 0.0005 mg/L, the O/O shall:
  - (1) Collect a confirmation sample under the same contributing conditions within 14 days of being notified of the result; and
  - (2) Have the sample analyzed for the contaminant(s) detected.

- (b) If the concentration of the VOC contaminant in the confirmation sample is greater than or equal to the detection limit of 0.0005 mg/L, the monitoring requirement for those sources shall be that stated in Env-Dw 712.05.
- (c) If the concentration of the VOC contaminant in the confirmation sample is below the detection limit, the monitoring requirements for those sources shall be that stated in Env-Dw 712.02.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.03) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.05 Revised Monitoring Frequency for VOC Contaminants.

- (a) If a VOC contaminant is detected in the confirmation sample at a level greater than or equal to the detection limit of 0.0005 mg/L, the sampling frequency for the representative sampling site shall be revised to quarterly.
- (b) The revised monitoring schedule pursuant to (a), above, shall continue until the concentration of the contaminant is reliably and consistently below the MCL at each sampling point.
- (c) After a minimum of one year of quarterly sampling pursuant to (b), above, the O/O may submit a written request to the department in accordance with (d), below, for the monitoring frequency to be reduced.
  - (d) The written request to reduce the VOC monitoring frequency shall contain the following:
    - (1) The name of the PWS;
    - (2) The PWS identifier for the PWS;
    - (3) A summary of all quarterly sampling results; and
    - (4) Whether any type of treatment to reduce VOC contaminants has been or is being used by the PWS.
- (e) The department shall reinstate annual monitoring for VOC contaminants in response to a request submitted pursuant to (d), above, upon determining that:
  - (1) Based on 4 consecutive quarterly samples, the level of VOC contaminant(s) previously detected is reliably and consistently below the MCL; and
  - (2) The PWS is not operating any type of treatment to reduce the amount of VOC contaminants.
- (f) The O/O of a PWS at which VOC contaminants are monitored annually shall monitor during the quarter which previously yielded the highest analytical result.
- (g) A PWS at which no VOC contaminants are detected in 3 consecutive annual samples may apply to the department for a waiver as specified in Env-Dw 712.20.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.04) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.06 Monitoring for Vinyl Chloride.

- (a) Subject to (e), below, the O/O of a community water system or non-transient non-community water system shall monitor quarterly for vinyl chloride if any of the following 2-carbon organic compounds is initially detected and subsequently confirmed in the water supply:
  - (1) Trichloroethylene;
  - (2) Tetrachloroethylene;
  - (3) 1,2-dichloroethane;
  - (4) 1,1,1-trichloroethane;
  - (5) Cis-1,2-dichloroethylene;
  - (6) Trans-1,2-dichloroethylene; or
  - (7) 1,1-dichloroethylene.
- (b) The vinyl chloride samples collected pursuant to (a), above, shall be collected at each sampling point for each source at which any of the 2-carbon organic compounds was detected and confirmed.
- (c) If the initial test results collected pursuant to (a), above, include analytical results for vinyl chloride, the results shall be counted as the first of 4 required quarterly samples.
- (d) If vinyl chloride is not detected in the first quarterly sample, the department shall reduce the required monitoring for vinyl chloride to one sample during each compliance period.
- (e) If monitoring frequency is not reduced pursuant to (d), above, then after a minimum of one year of quarterly sampling the O/O may submit a written request to the department as specified in (f), below, for the monitoring frequency to be reduced.
  - (f) The written request shall contain the following:
    - (1) The name of the PWS;
    - (2) The PWS identifier for the PWS;
    - (3) A summary of all quarterly sampling results; and
    - (4) Whether any type of treatment to reduce vinyl chloride has been or is being used by the PWS.
- (g) The department shall reinstate annual monitoring for vinyl chloride in response to a request submitted pursuant to (e), above, if the department determines that:
  - (1) Based on 4 consecutive quarterly samples, the level of vinyl chloride is reliably and consistently below the MCL; and
  - (2) The PWS is not operating any type of treatment to reduce the amount of vinyl chloride.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; and by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.05) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.07 Laboratory Methods and Sampling Protocol for VOC Contaminants.

- (a) Analyses for VOC contaminants shall be conducted only by laboratories that are accredited by the department for such analyses pursuant to Env-C 300.
- (b) Samples to be analyzed for VOC contaminants shall be collected in accordance with the protocol specified in 40 CFR 141.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.06) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.08 Compliance Determination for VOC Contaminants.

- (a) Compliance with Env-Dw 705.01 shall be determined based on the analytical results obtained at each sampling point identified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) For a PWS at which monitoring is conducted at a frequency greater than annually, the following shall apply:
  - (1) The department shall determine compliance based on a running annual average, as defined in Env-Dw 100, of all samples collected at each sampling point;
  - (2) If the running annual average of any sampling point is greater than the MCL, the PWS shall be out of compliance; and
  - (3) If any sample result is more than 4 times the MCL at any sample point, the PWS shall be out of compliance.
- (c) For purposes of determining the running annual average, any sample below the detection limit shall be calculated as zero.
- (d) If monitoring is conducted annually or less frequently, the PWS shall be out of compliance if the level of a VOC contaminant at any sampling point is greater than the MCL. If confirmation samples are required by Env-Dw 712.04, the determination of compliance shall be based on the average of the initial and confirmation samples.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.07) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.09 Recordkeeping and Reporting for VOC Contaminants; Limiting Public Notice.

- (a) An O/O shall:
  - (1) Maintain records as specified in Env-Dw 718; and
  - (2) Report monitoring results for VOC contaminants as specified in Env-Dw 719.

(b) If a PWS has a distribution system with portions that are hydraulically separate from other parts of the distribution system, the O/O may request approval from the department pursuant to Env-Dw 801 to limit the public notice to only that area hydraulically served by that portion of the PWS which is out of compliance.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.08) (See Revision Note #7 at chapter heading for Env-Dw 700)

## Env-Dw 712.10 Monitoring Location for SOC Contaminants.

- (a) The O/O of a PWS supplied by a groundwater source shall collect at least one sample to be analyzed for the health-related regulated synthetic organic chemical (SOC) contaminants listed in Env-Dw 705.02 at every entry point to the distribution system, which entry point is representative of each well after treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) The O/O of a PWS supplied by a surface water source or a combination of surface water and groundwater shall collect at least one sample to be analyzed for SOCs at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (c) If the O/O believes that conditions make another sampling point more representative of a source, treatment plant or distribution system, the O/O shall request a change in sampling location pursuant to Env-Dw 708.04.
- (d) If a PWS obtains water from more than one source and the sources are combined prior to entering the distribution system, the O/O shall collect the samples at an entry point to the distribution system during periods of normal operating conditions, when water from all sources is being used.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.09) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.11 Monitoring Frequency for SOC Contaminants.

- (a) The O/O of a community water system or non-transient, non-community water system shall monitor for SOCs on an annual basis, except that monitoring shall not be required for aldicarb, aldicarb sulfoxide, or aldicarb sulfone.
- (b) The O/O of a community water system or non-transient non-community water system at which no SOC listed in Env-Dw 705.02 is detected may apply to the department for a waiver from the requirement of this section as specified in Env-Dw 712.21.
- (c) The department shall reduce the sampling frequency to a minimum of one sample every 3 years or every 6 years if a waiver is granted pursuant to Env-Dw 712.21.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.10) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.12 Revised Monitoring for SOC Contaminants.

- (a) If any SOC listed in Env-Dw 705.02 is detected in any sample, the department shall revise the sampling requirements to quarterly for that contaminant at each representative sampling site.
- (b) The revised monitoring schedule for each source for the particular contaminant shall continue until the concentration of the contaminant in each source is reliably and consistently below the MCL.
- (c) The O/O may submit a written request as specified in (d), below, for the monitoring frequency to be reduced after a minimum of 4 consecutive quarterly samples for surface water systems or 2 consecutive quarterly samples for groundwater systems.
  - (d) A written request submitted pursuant to (c), above, shall contain:
    - (1) The name of the PWS;
    - (2) The PWS identifier for the PWS;
    - (3) A summary of all sampling results; and
    - (4) Whether any type of treatment to reduce SOC contaminants has been or is being used by the PWS.
- (e) The department shall reinstate annual monitoring for SOC contaminants in response to a request submitted pursuant to (d), above, if the department determines that:
  - (1) Based on 4 consecutive quarterly samples, the level of SOC contaminant(s) previously detected is reliably and consistently below the MCL; and
  - (2) The PWS is not operating any type of treatment to reduce the amount of SOC contaminants.
- (f) A PWS that monitors annually shall monitor during the quarter in which the highest analytical results occurred.
- (g) A PWS which has 3 consecutive annual samples with no detection of an SOC contaminant may apply to the department for a waiver as specified in Env-Dw 712.21.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.11) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.13 Laboratory Methods and Sampling Protocol for SOC Contaminants.

- (a) Analysis for SOCs shall be conducted only by laboratories that are accredited by the department for such analyses pursuant to Env-C 300.
- (b) Samples to be analyzed for SOC contaminants shall be collected in accordance with the protocol specified in 40 CFR 141.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.12) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.14 Compliance Determination for SOC Contaminants; Limiting Public Notice.

- (a) Compliance with Env-Dw 705.02 shall be determined using the analytical results obtained at each sampling point which is an entry point to the distribution system, as specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) For any PWS that conducts monitoring at a frequency greater than annually, the department shall determine compliance by calculating a running annual average of all samples collected at each sampling point. If the annual average of any sampling point is greater than the MCL, then the department shall identify the PWS as out of compliance.
- (c) If monitoring is conducted annually or less frequently, then the department shall identify the PWS as being out of compliance if the level of a contaminant at any sampling point is greater than the MCL.
- (d) If a PWS has a distribution system with portions that are hydraulically separate from other parts of the distribution system, the O/O may request approval from the department pursuant to Env-Dw 801 to limit the notice to only that portion that is out of compliance.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.13) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.15 Recordkeeping and Reporting for SOC Contaminants. An O/O shall:

- (a) Maintain records as specified in Env-Dw 718; and
- (b) Report monitoring results for SOC contaminants as specified in Env-Dw 719.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.14) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.16 Monitoring for Endrin.

- (a) The O/O of a CWS or NTNC shall conduct monitoring for the pesticide endrin for purposes of determining compliance with the MCL in accordance with this section.
  - (b) The O/O shall collect samples to be analyzed for endrin if endrin has been used:
    - (1) In the watershed of the surface water, for a system using surface water alone or in combination with groundwater; or
    - (2) Within the recharge area of the system's well or wells, for a system using only groundwater.
- (c) Samples shall be taken and analyzed during June through September, when contamination by pesticides is most likely to occur, at the intervals specified in the sampling schedule established pursuant to Env-Dw 708.01, which shall be no less frequently than at 3-year intervals.
  - (d) If the level of endrin exceeds the MCL, the O/O shall:
    - (1) Report the exceedance to the department within 7 days; and
    - (2) Conduct 3 additional analyses within one month.

- (e) If the average of the original result and the 3 results obtained pursuant to (d), above, rounded to the same number of significant figures as the MCL, exceeds the MCL, the O/O shall:
  - (1) Report to the department pursuant to Env-Dw 719; and
  - (2) Give notice to the public pursuant to Env-Dw 800.
- (f) After giving public notification pursuant to (e)(2), above, the O/O shall continue to monitor for endrin until the MCL has not been exceeded in 2 successive samples or until a monitoring schedule as a condition to a variance, exemption, or enforcement action becomes effective.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; and by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.15) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.17 PCB Monitoring.

- (a) The O/O of a CWS or NTNC that is vulnerable to PCB contamination due to the current or historical presence of electrical transformers in which PCBs may be present shall collect one sample from the source during the pump test required by Env-Dw 301 or Env-Dw 302, as applicable, and analyze each sample using method 505 or 508 specified in 40 CFR 141.24.
- (b) If PCBs, as one of 7 Aroclors, are detected in an initial pump test sample, the O/O shall reanalyze the sample using method 508A specified in 40 CFR 141.24.
- (c) The department shall determine compliance with the PCB MCL based on the quantitative results of analyses using method 508A.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.16) (See Revision Note #7 at chapter heading for Env-Dw 700)

# Env-Dw 712.18 Monitoring and Compliance Determination for Disinfection Byproducts.

- (a) The O/O of a community water system shall monitor for disinfection byproducts as specified in Env-Dw 715.
- (b) Compliance with the disinfection byproduct monitoring requirements shall be as specified in Env-Dw 715.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.17) (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 712.19 <u>Monitoring for Acrylamide and Epichlorohydrin</u>. Each O/O shall certify annually in writing to the department that when acrylamide and epichlorohydrin are used in drinking water systems, the combination of dose and monomer level does not exceed the levels specified in Env-Dw 705.05.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.18) (See Revision Note #7 at chapter heading for Env-Dw 700)

## Env-Dw 712.20 VOC Contaminants Monitoring Waivers.

- (a) The O/O of a community water system or a non-transient non-community water system who wishes to request a waiver or reduction in monitoring requirements for one or more VOC contaminants, where authorized by Env-Dw 712.02, shall submit the following information in writing to the department in the paper or electronic format provided by the department to facilitate the submission of the information:
  - (1) The name of the PWS:
  - (2) The location, including street address, of the PWS;
  - (3) The PWS identifier for the PWS;
  - (4) The name, mailing address, daytime telephone number including area code, and email address or fax number of the PWS owner and operator;
  - (5) The name, daytime telephone number including area code, and e-mail address or fax number of the individual who completed the application;
  - (6) The name, mailing address, daytime telephone number including area code, and email address or fax number of the individual responsible for distributing educational materials on behalf of the PWS;
  - (7) For each system source, the type and location of the source;
  - (8) The results of all VOC analyses for each source within one year of the waiver request; and
  - (9) Source water protection area information including:
    - a. The maximum daily withdrawal volume;
    - b. Identification of known and potential contamination sources, as defined in Env-Dw 305.12, within the source water protection area; and
    - c. Identification of land uses for the following areas:
      - 1. For wells, within the sanitary protective area established in accordance with Env-Dw 301, Env-Dw 302, Env-Dw 405, or Env-Dw 406, as applicable, or predecessor rules in Env-Ws 378, Env-Ws 379, Env-Ws 372, or Env-Ws 373, respectively; and
      - 2. For surface water sources, within the source water intake protection area.
- (b) The request shall be signed by the individuals identified pursuant to (a)(4) and (5), above. Such signatures shall constitute certification that the information provided is true, complete, and not misleading to the signer's knowledge and belief.

- (c) No request shall be granted if the PWS:
  - (1) Has not resolved or does not have or is not implementing a corrective action plan approved pursuant to Env-Dw 720.11 for each significant deficiency identified by the department in accordance with Env-Dw 717 or Env-Dw 720;
  - (2) Has not corrected or is not in the process of correcting each deficiency or violation identified in an administrative order or letter of deficiency issued by the department;
  - (3) Does not have an active primary water system operator as required by Env-Dw 502;
  - (4) Has not paid its permit-to-operate fee as specified in Env-Dw 501;
  - (5) Is not in compliance with the lead and copper requirements specified in Env-Dw 714;
  - (6) Is not in compliance with the emergency plan requirements specified in Env-Dw 503.21, if applicable;
  - (7) Is not in compliance with the consumer confidence report requirements specified in Env-Dw 811, if applicable;
  - (8) Is not in compliance with the monitoring requirements specified in Env-Dw 710 through Env-Dw 713;
  - (9) Has submitted an incomplete request or a request that contains false information; or
  - (10) Has received a new well approval letter from the department that states the system is not eligible for a VOC waiver pursuant to Env-Dw 305.29(e).
- (d) No VOC monitoring waiver shall be granted if:
  - (1) Within the sanitary protective area there is:
    - a. Any structure of any size or type from which there is a discharge to the ground or groundwater of any substance other than potable water from hydrants, blow-offs, sampling taps, or other such structures;
    - b. Any structure of any size or type, other than the pump house, in which regulated substances as defined in Env-Wq 401 are stored, used, or handled, other than chemicals or other substances necessary for treatment processes in the pump house;
    - c. One or more disposal systems for solid waste or wastewater, such as dumpsters or septic tanks, grease traps, or effluent disposal areas; or
    - d. One or more above-ground storage tanks (ASTs) or underground storage tanks (USTs) for hazardous chemicals or petroleum products such as oil, gasoline, propane, or natural gas, other than:
      - 1. A tank used exclusively to store potable water treatment chemicals;
      - 2. An interior home heating oil tank located within an intact concrete structure such as a basement;
      - 3. An exterior home heating oil tank located on an impervious surface with a roof, secondary containment, and protection from collision; or

- 4. An AST used to store propane or natural gas only, that is in compliance with Env-Or 300, if applicable, or applicable fire safety requirements;
- (2) The well or surface water intake is within 50 feet of a parking lot;
- (3) The well is within 25 feet of a trail used by off-highway recreational vehicles as defined in RSA 215-A:1, VI (OHRV), or snowmobiles as defined in RSA 251-A:1, XIII, or both;
- (4) The surface water intake is within 200 feet of a trail used by OHRV or snowmobiles, or both;
- (5) There is a known source of contamination within the source water protection area that has not been designated as closed or inactive by the department;
- (6) The PWS is on mandatory VOC sampling pursuant to Env-Dw 712.05(a) or an administrative order;
- (7) The source has had a detection of a regulated VOC within the previous 3 years;
- (8) There is an on-site VOC treatment system;
- (9) Within 1,000 feet of the well or surface water intake and within the source water protection area, there is:
  - a. A junk yard as defined in RSA 236:112; or
  - b. One or more ASTs or USTs that contain(s) petroleum products or other regulated substances, except propane; or
- (10) There is confirmed detection of MTBE at any level in any public or private drinking or monitoring well located within 1,000 feet of the well or surface water intake within the past 3 years.
- (e) The department shall grant a 3-year VOC waiver if none of the disqualifying conditions identified in (c) or (d), above, are present.

Source. #12668, eff 1-1-19

### Env-Dw 712.21 SOC Contaminants Monitoring Waivers.

- (a) The O/O of a community water system or a non-transient non-community water system who wishes to request a waiver or reduction in monitoring requirements for one or more SOC contaminants, where authorized by Env-Dw 712.11(b), shall submit the following information in writing to the department in the paper or electronic format provided by the department to facilitate the submission of the information:
  - (1) The information required by Env-Dw 712.20(a)(1)-(7) and (9); and
  - (2) The results of all SOC contaminant analyses for each source within one year of the waiver request.
- (b) The request shall be signed by the individuals identified pursuant to Env-Dw 712.20(a)(4) and (5). Such signatures shall constitute certification that the information provided is true, complete, and not misleading to the signer's knowledge and belief.
  - (c) No SOC contaminant monitoring waiver shall be granted if:
    - (1) Any of the circumstances specified in Env-Dw 712.20(c)(1)-(9) are present;

- (2) The O/O has received a new well approval letter from the department that states the system is not eligible for an SOC contaminant waiver, pursuant to Env-Dw 305.29(e);
- (3) The PWS is on a mandatory SOC contaminant sampling program pursuant to Env-Dw 712.12(a);
- (4) There is an on-site SOC contaminant treatment system;
- (5) There is a solid waste facility as regulated under RSA 149-M and subtitle Env-Sw within the source water protection area; or
- (6) The source has had a detection of a regulated SOC contaminant within the previous 3 years.
- (d) The department shall grant a 6-year SOC contaminant monitoring waiver if none of the disqualifying conditions identified in (c), above, are present and the well or surface water intake is not:
  - (1) Within a pesticide application area;
  - (2) Located under a power line; or
  - (3) Within 50 feet of an active railroad.
  - (e) The department shall grant a 3-year SOC waiver if:
    - (1) None of the disqualifying conditions identified in (c), above, are present; and
    - (2) If the source is located under a power line, the O/O has obtained an agreement and consent for joint use with the owner of the power line to not use SOCs in the sanitary protective area.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.19) (See Revision Note #7 of chapter heading for Env-Dw 700)

# Env-Dw 712.22 <u>VOC and SOC Contaminants Monitoring Waivers: Duration, Conditions, Renewal,</u> Revocation.

- (a) A waiver shall be valid for the applicable time established in Env-Dw 712.20(e) or Env-Dw 712.21(d) or (e), as applicable, from the date of the most recent sampling for the contaminant for which the waiver is granted.
- (b) As a condition of any waiver granted under Env-Dw 712.20(e) or Env-Dw 712.21(d) or (e), as applicable, the O/O shall distribute educational materials provided by the department within 30 days of the date of the waiver approval and at least once every 3 years thereafter to:
  - (1) Residents within the source water protection area; and
  - (2) Owners of known and potential contamination sources within the source water protection area.
- (c) If requested by the O/O, the department shall grant an extension of the time limit established in (b), above, for not more than 45 days.
- (d) The O/O shall certify to the department that the educational materials have been distributed as required by (b), above, before the due date established pursuant to (b) or (c), above, as applicable.

- (e) As a condition of any waiver granted under this section for sources producing greater than 57,600 gpd and for systems that serve 1,000 people or more, the O/O shall conduct inspections of all potential contamination sources to ensure compliance with the best management practices specified in Env-Wq 401 at least once every 3 years and within 6 months of the renewal due date.
- (f) If an O/O wishes to continue to operate under a VOC contaminant monitoring waiver or an SOC contaminant monitoring waiver, the O/O shall, prior to the expiration of the existing waiver, submit to the department:
  - (1) A request for renewal that includes the information specified in Env-Dw 712.20(a) or Env-Dw 712.21(a), as applicable; and
  - (2) A certification that the inspections required by (e), above, if applicable, have been completed.
- (g) The department shall initiate an adjudicative proceeding in accordance with the relevant sections of RSA 541-A and Env-C 200 to revoke a VOC contaminant monitoring waiver or an SOC contaminant monitoring waiver if:
  - (1) The department receives SOC or VOC contaminant monitoring results with detections after the waiver has been granted;
  - (2) Any of the criteria in Env-Dw 712.20(c) are met;
  - (3) The department receives credible information that public health could be compromised by reduced sampling, for example because a contaminant covered by the waiver has been detected on adjacent property; or
  - (4) The educational mailing required by (b), above, has not been undertaken by the deadline established in the waiver request approval letter or the O/O has not provided the certification required by (f)(2), above, by the established deadline.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (formerly Env-Dw 712.19) (See Revision Note #7 of chapter heading for Env-Dw 700)

# Env-Dw 712.23 Initial Monitoring for Per- and Polyfluoroalkyl Substances (PFAS) Contaminants.

- (a) Beginning with the first quarter following the 2019 effective date of this section, the O/O of an existing community water system or existing non-transient, non-community water system shall collect 4 consecutive quarterly samples for the per- and polyfluoroalkyl substances contaminants listed in Env-Dw 705.06 at each sampling point identified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) Beginning with the first quarter following the initiation of operations of a new community water system or new non-transient, non-community water system, the O/O shall collect 4 consecutive quarterly samples for the PFAS contaminants listed in Env-Dw 705.06 at each sampling point identified in the sampling schedule established pursuant to Env-Dw 708.01.
- (c) If the results of the samples from the first 2 quarters are below the detection limits specified in Env-Dw 712.28(c), the O/O may submit a written request to the department for the monitoring frequency to be reduced.
  - (d) A written request submitted pursuant to (c), above, shall include the following:
    - (1) The name of the PWS;

- (2) The PWS identifier for the PWS; and
- (3) A summary of the historical PFAS data from the system and nearby systems, when available.
- (e) If the department determines that the results are all below the detection limits listed in Table 712-2, the final 2 quarters of the initial monitoring shall be waived and the monitoring frequency shall be as specified in Env-Dw 712.24.

Source. #12838, eff 9-30-19

## Env-Dw 712.24 Monitoring Frequency for PFAS Contaminants.

(a) Subsequent to the initial monitoring required by Env-Dw 712.23 and subject to Env-Dw 712.26, the O/O shall monitor for all PFAS contaminants based on the PFAS contaminant with the most frequent monitoring period calculated from the average of the results of the initial monitoring required by Env-Dw 712.23, as specified in Table 712-1, below, and as demonstrated in Appendix D for specific PFAS contaminants:

<u>Table 712-1: Monitoring Frequency Based on PFAS Contaminant Concentrations</u>

Average Monitoring Result (ng/L)	Frequency
Greater than 50% of MCL to 100% of MCL	Annually
50% of MCL or less	Once every 3 years

- (b) If the average monitoring result exceeds 100% of the MCL, the O/O shall monitor as specified in Env-Dw 712.27.
- (c) The O/O shall monitor for PFAS contaminants during the quarter in which the highest analytical result was observed.
- (d) Subsequent sample results shall be used to establish future PFAS contaminant sampling schedules using the shortest PFAS monitoring period specified in Table 712-1.
  - (e) Based on a review of the submitted results, the department shall:
    - (1) Modify the system's schedule in accordance with Table 712-1 or (b), above, as applicable; and
    - (2) Notify the O/O in writing of the new monitoring requirements.

Source. #12838, eff 9-30-19

## Env-Dw 712.25 Monitoring Location for PFAS Contaminants.

- (a) The O/O of a PWS supplied by a groundwater source shall collect at least one sample to be analyzed for PFAS contaminants at every entry point to the distribution system. Each entry point shall be representative of each well after treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) The O/O of a PWS supplied by a surface water source or a combination of surface water and groundwater shall collect at least one sample to be analyzed for PFAS contaminants at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01.

- (c) If the O/O believes that conditions make another sampling point more representative of a source, treatment plant, or distribution system for purposes of sampling for PFAS contaminants, the O/O shall request a change in sampling location for such contaminants pursuant to Env-Dw 708.04.
- (d) If a PWS obtains water from more than one source and the sources are combined prior to entering the distribution system, the O/O shall collect the samples to be analyzed for PFAS contaminants at an entry point to the distribution system during periods of normal operating conditions, when water from all sources is being used.

Source. #12838, eff 9-30-19

## Env-Dw 712.26 Confirmation Sampling for PFAS Contaminants.

- (a) Subject to (c), below, if a PFAS contaminant is detected in a representative sample at a level greater than 50% of the MCL, the O/O shall:
  - (1) Collect a confirmation sample under the same contributing conditions within 14 days of being notified of the result; and
  - (2) Have the sample analyzed for the contaminant(s) detected.
- (b) If a confirmation sample is required pursuant to (a) above, the results of the initial and confirmation samples shall be averaged to determine compliance with the MCL specified in Env-Dw 705.06.
- (c) If results from the sampling point or the contributing sources have historically demonstrated the presence of that PFAS contaminant at a level greater than 50% of the MCL, then:
  - (1) A confirmation sample shall not be required; and
  - (2) The monitoring frequency for the approved sampling point shall be determined pursuant to Env-Dw 712.24 or Env-Dw 712.27, as applicable.

Source. #12838, eff 9-30-19

Env-Dw 712.27 <u>Increased Monitoring for PFAS Contaminants</u>. The O/O shall collect and analyze quarterly PFAS samples at all sampling points if:

- (a) The running annual average for any PFAS contaminant at the sampling point is above the applicable MCL; or
  - (b) The PWS is operating any type of treatment to reduce the amount of a PFAS contaminant.

Source. #12838, eff 9-30-19

# Env-Dw 712.28 <u>Laboratory Methods, Sampling Protocols, and Detection Limits for PFAS Contaminants.</u>

- (a) Analysis for PFAS contaminants shall be conducted only by laboratories that are accredited by the department for such analyses pursuant to Env-C 300.
- (b) Samples to be analyzed for PFAS contaminants shall be collected in accordance with the protocol specified in the sample analysis method approved per Env-Dw 707.06.
  - (c) Detection limits for PFAS contaminants shall not exceed those set forth in Table 712-2, below:

Table 712-2: Detection Limits for PFAS Contaminants

PFAS Contaminant	Detection Limit
Perfluorohexane sulfonic acid (PFHxS)	2 ng/L
Perfluorononanoic acid (PFNA)	2 ng/L
Perfluorooctane sulfonic acid (PFOS)	2 ng/L
Perfluorooctanoic acid (PFOA)	2 ng/L

Source. #12838, eff 9-30-19

# Env-Dw 712.29 Compliance Determination for PFAS Contaminants; Limiting Public Notice.

- (a) Compliance with Env-Dw 705.06 shall be determined using the analytical results obtained at each sampling point that is an entry point to the distribution system, as specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (b) For any PWS that conducts monitoring for PFAS contaminants at a frequency greater than annually, the department shall determine compliance by calculating a running annual average of all samples collected at each sampling point. If the annual average of any sampling point is greater than the MCL, then the department shall identify the PWS as out of compliance.
- (c) If monitoring for PFAS contaminants is conducted annually or less frequently, then the department shall identify the PWS as being out of compliance if the level of a PFAS contaminant at any sampling point is greater than the MCL.
- (d) If a PWS has a distribution system with portions that are hydraulically separate from other parts of the distribution system, the O/O may request approval from the department pursuant to Env-Dw 801 to limit the notice to only that portion that is out of compliance.

Source. #12838, eff 9-30-19

# Env-Dw 712.30 Recordkeeping and Reporting for PFAS Contaminants. An O/O shall:

- (a) Maintain records of PFAS contaminant analyses for not less than 10 years and as specified in Env-Dw 718; and
  - (b) Report monitoring results for PFAS contaminants as specified in Env-Dw 719.

Source. #12838, eff 9-30-19

### PART Env-Dw 713 MONITORING FOR SECONDARIES

Env-Dw 713.01 Monitoring for Regulated Secondaries. The O/O of a community water system or non-transient, non-community water system shall monitor to determine compliance with the secondary MCLs (SMCLs) specified in Env-Dw 706, as applicable, in accordance with this part.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

## Env-Dw 713.02 Monitoring Location for Secondaries.

(a) The O/O of a PWS supplied by a groundwater source shall collect at least one sample to be analyzed for secondaries at every entry point to the distribution system which is representative of each well after treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01.

- (b) The O/O of a PWS supplied by a surface water source or a combination of surface water and groundwater shall collect at least one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment, as specified in the sampling schedule established pursuant to Env-Dw 708.01.
- (c) If the O/O believes that conditions make a sampling point other than that established in the sampling schedule more representative of each source or treatment plant, the O/O shall request a change in sampling location pursuant to Env-Dw 708.04.
- (d) If a PWS draws water from more than one source and the sources are combined before distribution, the O/O shall sample at an entry point to the distribution system during periods of normal operating conditions, when water is representative of all sources being used.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 713.03 <u>Frequency of Monitoring for Secondaries</u>. The O/O of a community water system or non-transient, non-community water system shall monitor for compliance with the SMCLs listed in Env-Dw 706 once every 3 years.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 713.04 <u>Sampling Protocol for Secondaries</u>. Samples to be analyzed for compliance with SMCLs shall be collected in accordance with the protocol specified in 40 CFR 141 or 143, as applicable.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 713.05 <u>Increased Monitoring for Secondaries after an Exceedance</u>. The O/O of a community water system or non-transient, non-community water system where an SMCL is exceeded and consumer complaints have been documented shall monitor based on a schedule established by the department in accordance with Env-Dw 708.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 713.06 Annual Fluoride Public Notice for SMCL Exceedance.

- (a) The O/O of a system where the SMCL for fluoride is exceeded shall provide annual public notice as specified in Env-Dw 800.
  - (b) The public notice shall list the most recent sample result(s) used to determine compliance.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

Env-Dw 713.07 Recordkeeping and Reporting for Secondaries. The O/O shall:

- (a) Maintain records as specified in Env-Dw 718; and
- (b) Report SMCL monitoring results as specified in Env-Dw 719.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

### Env-Dw 713.08 Monitoring and Reporting for Sodium.

- (a) The O/O of a community water system or non-transient non-community water system shall collect and analyze one sample per plant at the entry point of the distribution system, as specified in the sampling schedule established pursuant to Env-Dw 708.01, for the determination of sodium concentration levels.
  - (b) Samples shall be collected and analyzed:
    - (1) Annually, for systems using surface water sources in whole or in part; and
    - (2) Subject to (c), below, once every 3 years for systems using groundwater only.
- (c) The department shall establish a more frequent monitoring schedule for a system using groundwater only if a source is in a location where the sodium content is variable.
- (d) Subject to (e), below, the O/O shall report the results of the analyses for sodium to the department within the earlier of:
  - (1) The first 10 days of the month following the month in which the sample results were received; or
  - (2) The first 10 days following the end of the required monitoring period.
- (e) If more than annual sampling is required, the O/O shall report the average sodium concentration within 10 days of the month following the month in which the analytical results of the last sample used for the annual average was received.
  - (f) Subject to (g), below, the O/O shall send:
    - (1) A written notice of the sodium levels to appropriate local and state public health officials by direct mail within 3 months; and
    - (2) A copy of each notice required to be provided by (1), above, to the department within 10 days of its issuance.
- (g) The O/O shall not be required to send the notice required by (f), above, if the department provides such notices in lieu of the supplier pursuant to Env-Dw 801.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9700, eff 5-1-10; amd by #10771, eff 2-1-15; ss by #12668, eff 1-1-19 (See Revision Note #7 at chapter heading for Env-Dw 700)

### PART Env-Dw 714 CONTROL OF LEAD AND COPPER

Statutory Authority: RSA 485:2, V

## Env-Dw 714.01 Purpose and Applicability.

- (a) The purpose of the rules in this part is to implement 40 CFR 141 Subpart I, Control of Lead and Copper, by establishing a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education, as specified in 40 CFR 141 §\$80-91, also called Subpart I, which, pursuant to 40 CFR §141.1, constitute the national primary drinking water requirements for lead and copper. The requirements in this part are triggered, in some cases, by the level of lead or copper, or both, exceeding the lead action level or copper action level, or both, as applicable, when measured in samples collected at consumers' water taps.
- (b) The requirements of this part shall apply to every public water system (PWS) that is a community water system (CWS) or a non-transient non-community water system (NTNC), collectively referred to in this part as a water system.

Source. #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

#### Env-Dw 714.02 Definitions.

- (a) As used in this part, the following terms shall be defined as follows:
  - (1) "Date of action level exceedance" means the date the department sends notice to the water system O/O, which shows that the lead action level is exceeded, the copper action level is exceeded, or both action levels are exceeded;
  - (2) "Optimal corrosion control treatment" means "optimal corrosion control treatment" as defined in 40 CFR 141.2, 7-1-16, as reprinted in Appendix B;
  - (3) "Optimal water quality parameters" means the water quality parameters and ranges required to maintain corrosion control treatment;
  - (4) "Reduced water quality monitoring" means reduced monitoring as described in 40 CFR §141.87(e);
  - (5) "Routine water quality monitoring" means the monitoring required after an approved corrosion control treatment is installed:
  - (6) "Source water sample" means a sample collected at every entry point to the distribution system of groundwater or surface water, which is representative of the source(s) after treatment, if any.
- (b) The following terms used in this part shall be as defined in 40 CFR §141.2, 7-1-16 edition, reprinted in Appendix B:
  - (1) "Large water system";
  - (2) "Medium-sized water system"; and
  - (3) "Small water system".
- (c) 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, 7-1-16 edition, unless otherwise defined in this part.

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

<u>Source.</u> #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

### Env-Dw 714.03 Exceedance of Lead Action Level; Exceedance of Copper Action Level.

- (a) As specified in 40 CFR §141.80(c)(1), 7-1-16 edition, the lead action level shall be deemed exceeded if the concentration of lead in more than 10% of tap water samples collected in accordance with Env-Dw 714.08 during any monitoring period is greater than 0.015 mg/L, that is, if the 90th percentile as computed pursuant to (c), below, is greater than 0.015 mg/L.
- (b) As specified in 40 CFR §141.80(c)(2), 7-1-16 edition, the copper action level shall be deemed exceeded if the concentration of copper in more than 10% of tap water samples collected in accordance with Env-Dw 714.08 during any monitoring period is greater than 1.3 mg/L, that is, if the 90th percentile as computed pursuant to (c), below, is greater than 1.3 mg/L.
- (c) The 90th percentile lead and copper levels shall be computed as specified in 40 CFR §141.80(c)(3)(i) through (v), 7-1-16 edition.

<u>Source.</u> #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

Env-Dw 714.04 <u>Requirements for Corrosion Control and Source Water Treatment and Monitoring</u>. In addition to any other requirements in this part that apply:

- (a) The O/O of each large water system that is subject to this part shall comply with the applicable source water monitoring and treatment, tap water monitoring, water quality parameter monitoring and treatment requirements, and corrosion control treatment requirements specified in 40 CFR §141.81 through §141.83 and 40 CFR §141.86 through §141.88, 7-1-16 edition.
- (b) The O/O of each small or medium-sized water system that is subject to this part, at which the lead and/or copper action level is exceeded, shall comply with the applicable source water monitoring and treatment, tap water monitoring, water quality parameter monitoring and treatment requirements, and corrosion control treatment requirements specified in 40 CFR §141.81 through §141.83 and 40 CFR §141.86 through §141.88, 7-1-16 edition, subject to the following:
  - (1) The water system O/O shall perform corrosion control studies within 12 months of the date of action level exceedance;
  - (2) The water system O/O shall demonstrate that optimized corrosion control treatment has been achieved within 24 months of the date of action level exceedance; and
  - (3) As specified in Env-Dw 714.08, the water system O/O shall conduct tap water monitoring in accordance with 40 CFR §141.86, whether or not a lead and/or copper action level has been exceeded, but only when the provisions of 40 CFR §141.86 so require.

<u>Source.</u> #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

Env-Dw 714.05 <u>Lead Service Line Replacement Requirements</u>. The O/O of any water system that is subject to this part at which the lead action level is still exceeded after implementation of applicable corrosion control and source water treatment requirements shall comply with the lead service line replacement requirements specified in 40 CFR §141.84, 7-1-16 edition.

Source. #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

## Env-Dw 714.06 Customer Notification and Public Education Requirements.

- (a) The O/O of a water system that is subject to this part shall:
  - (1) Comply with the lead tap water monitoring results notification and other requirements of 40 CFR §141.85, 7-1-16 edition; and
  - (2) Provide documentation to the department of consumer notification as specified in Env-Dw 714.07.
- (b) The O/O of a water system that is subject to this part at which the lead action level is exceeded shall comply with the public education requirements as specified in 40 CFR §141.85, 7-1-16 edition, except that public education deadlines shall be calculated from the date of action level exceedance.

Source. #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

Env-Dw 714.07 <u>Reporting Requirements</u>. The O/O of a water system that is subject to this part shall comply with the reporting requirements specified in 40 CFR §141.90, 7-1-16 edition.

Source. #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

Env-Dw 714.08 Monitoring Requirements for Lead and Copper in Tap Water. The O/O of a water system that is subject to this part shall comply with the tap water monitoring requirements for lead and copper specified in 40 CFR §141.86, 7-1-16 edition, provided that the samples shall be taken at the sampling points specified in the sampling schedule established pursuant to Env-Dw 708.01 through Env-Dw 708.04.

<u>Source.</u> #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

### Env-Dw 714.09 Monitoring Requirements for Water Quality Parameters.

(a) The O/O of a water system that is subject to this part shall comply with the monitoring requirements for water quality parameters specified in 40 CFR §141.87, 7-1-16 edition, as modified by Table 714-1, below, subject to the notes in (b), below:

Table 714-1: Summary of Monitoring Requirements for Water Quality Parameters

Monitoring period; Location	Parameters	Frequency	
Initial water quality monitoring:			
- Taps - Entry point(s) to distribution system	<ul> <li>pH</li> <li>alkalinity</li> <li>conductivity</li> <li>water temperature</li> <li>calcium <sup>A</sup></li> <li>orthophosphate <sup>B</sup></li> <li>silica <sup>C</sup></li> </ul>	As specified in 40 CFR §141.87, except that the frequency shall be twice in 90 days after the date of action level exceedance	
Routine water quality monitoring:			
- Taps	<ul> <li>pH</li> <li>alkalinity</li> <li>calcium <sup>A</sup></li> <li>orthophosphate <sup>B</sup></li> <li>silica <sup>C</sup></li> </ul>	As specified in 40 CFR §141.87, except that the frequency shall be every 3 months for parameters to be reported twice during each monitoring period	
- Entry point(s) to distribution system	- pH - alkalinity <sup>D</sup> - inhibitor <sup>E</sup>	No less frequently than every 2 weeks	
Optimal water quality parameters:			
- Taps	- pH - alkalinity - calcium <sup>A</sup> orthophosphate <sup>B</sup> - silica <sup>C</sup>	Every 6 months	
- Entry points(s) to distribution system	- pH - alkalinity <sup>D</sup> - inhibitor <sup>E</sup>	No less frequently than every 2 weeks <sup>F</sup>	
Reduced water quality monitoring:			
- Taps	- pH - alkalinity - calcium <sup>A</sup> - orthophosphate <sup>B</sup> - silica <sup>C</sup>	Every 6 months, annually or every 3 years; reduced number of sites	
- Entry point(s) to distribution system	- pH - alkalinity <sup>D</sup> - inhibitor <sup>E</sup>	No reductions; continues no less frequently than every 2 weeks <sup>F</sup>	

## (b) The following notes shall apply to Table 714-1:

- (1) "A" means that calcium analysis is required only if calcium carbonate stabilization is used as part of corrosion control;
- (2) "B" means that orthophosphate analysis is required only if an inhibitor containing a phosphate compound is used;
- (3) "C" means that silica analysis is required only if an inhibitor containing a silicate compound is used;

- (4) "D" means that analysis of the dosage rate of the chemical used to adjust alkalinity and the alkalinity concentration is required only if alkalinity is adjusted as part of corrosion control;
- (5) "E" means that analysis of the dosage rate of the inhibitor used and the concentration of orthophosphate or silica, as applicable, is required only if a corrosion inhibitor is used as part of corrosion control; and
- (6) "F" means that the system O/O shall maintain a log which identifies, for each sample taken, the date the sample was taken, the sampling location, and the result.

Source. #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

Env-Dw 714.10 <u>Monitoring Requirements for Lead and Copper in Source Water</u>. The O/O of a water system that is subject to this part shall:

- (a) Comply with the monitoring requirements for lead and copper in source water at every entry point to the distribution system as specified in 40 CFR §141.88, 7-1-16 edition; and
- (b) Collect and submit to the department a confirmation sample for any sampling location for which the monitoring result shows either lead at or above 0.015 mg/L or copper at or above 1.3 mg/L, or both.

<u>Source.</u> #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

Env-Dw 714.11 <u>Analytical Requirements</u>. All analyses required by this part shall be done in compliance with the analytical requirements specified in 40 CFR §141.89, 7-1-16 edition.

Source. #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

Env-Dw 714.12 <u>Recordkeeping Requirements</u>. The O/O of a water system that is subject to this part shall:

- (a) Comply with the recordkeeping requirements of 40 CFR §141.91, 7-1-16 edition, as reprinted in Appendix B; and
- (b) Maintain monthly optimized water quality parameter logs for the life of the corrosion control treatment and make such logs available to the department for review.

Source. #9859, eff 2-8-11 (See Revision Note #4 at chapter heading for Env-Dw 700); ss by #12181, eff 5-23-17

# PART Env-Dw 715 DISINFECTION RESIDUALS, BYPRODUCTS, AND BYPRODUCT PRECURSORS

Env-Dw 715.01 <u>Purpose</u>. The purpose of these rules is to establish procedures and standards for the control of disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors by public water system O/Os, as specified in 40 CFR 141 Subpart L, §§130-135, 40 CFR 141 Subpart U, §§600-605, and 40 CFR 141 Subpart V, §§620-629, which, pursuant to 40 CFR 141.1, constitute national primary drinking water requirements.

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

Env-Dw 715.02 Applicability. This part shall apply to:

- (a) Each community water system or non-transient non-community water system at which any chemical disinfectant, including chlorine dioxide, is added to the water in any part of the treatment process; and
- (b) Each transient non-community water system at which chlorine dioxide is added as a disinfectant or oxidant to the water in any part of the treatment process.

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

Env-Dw 715.03 Definitions.

- (a) "Combined distribution system" means "combined distribution system" as defined in 40 CFR § 141.2, reprinted in Appendix B.
- (b) "Conventional filtration" means "conventional filtration treatment" as defined in 40 CFR § 141.2, reprinted in Appendix B.
- (c) "Dual sample set" means "dual sample set" as defined in 40 CFR § 141.2, reprinted in Appendix B.
  - (d) "GAC10" means "GAC10" as defined in 40 CFR § 141.2, reprinted in Appendix B.
  - (e) "GAC20" means "GAC20" as defined in 40 CFR § 141.2, reprinted in Appendix B.
- (f) "Locational running annual average" means "locational running annual average" as defined in 40 CFR § 141.2, reprinted in Appendix B.
- (g) "PWS subject to this part" means a public water system that is in one of the categories listed in Env-Dw 715.02.
- (h) "Wholesale system" means "wholesale system" as defined in 40 CFR § 141.2, reprinted in Appendix B.

<u>Source.</u> #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

Env-Dw 715.04 <u>Increasing Residual Disinfectant Levels</u>. Notwithstanding the maximum residual disinfectant levels (MRDLs) specified in Env-Dw 700, the O/O of a PWS subject to this part may increase the distribution system residual disinfectant levels of chlorine or chloramines, but not chlorine dioxide, pursuant to 40 CFR § 141.130(d).

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

Env-Dw 715.05 Analytical Requirements. The O/O of a PWS subject to this part shall conduct analyses as specified in 40 CFR § 141.131.

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

## Env-Dw 715.06 Monitoring Requirements.

- (a) The O/O of a PWS subject to this part shall conduct sampling and monitoring as specified in 40 CFR § 141.132 and § 141.133.
- (b) Multiple wells for which a disinfectant is added at multiple separate points shall be considered as one treatment plant for determining the minimum number of TTHM and HAA5 samples specified in 40 CFR § 141.132, in accordance with the following criteria:
  - (1) Routine monitoring at a frequency specified in 40 CFR § 141.132 shall have been performed for a minimum of one year;
  - (2) Running annual average results shall be less than 0.040 mg/L for TTHM and less than 0.030 mg/L for HAA5;
  - (3) For overburden wells, multiple wells shall be located within the same aquifer as determined using the stratified drift aquifer mapping of the U.S. Geological Survey;
  - (4) For bedrock wells, multiple wells shall be located within an area of less than 4,000 feet in radius; and
  - (5) The water quality of the multiple wells shall be within the following limits:
    - a. pH within 0.5 units, using one of the analytical methods specified in 40 CFR § 141.23(k);
    - b. Total hardness within 10 mg/L, as CaCO<sub>3</sub>;
    - c. Alkalinity within 10 mg/L, as CaCO<sub>3</sub>; and
    - d. Conductivity within 50 μmhos/cm<sup>2</sup>.
- (c) If running annual average results for multiple wells initially considered as one treatment plant in (b), above, subsequently exceed 0.040 mg/L for TTHM or 0.030 mg/L for HAA5, each well shall then be considered as a separate treatment plant for monitoring purposes, subject to the routine and reduced monitoring frequency requirements specified in 40 CFR § 141.132.

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

Env-Dw 715.07 <u>Compliance Determination</u>. The department shall determine compliance with the requirements of Env-Dw 715.06 by a PWS subject to this part as specified in 40 CFR § 141.133.

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

Env-Dw 715.08 Reporting and Recordkeeping Requirements. The O/O of a PWS subject to this shall report to the department as specified in 40 CFR § 141.134 and § 141.639.

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

Env-Dw 715.09 <u>Treatment Technique for Control of Disinfection Byproduct Precursors</u>. The O/O of a SW/GWUDISW system that is in one of the categories listed in Env-Dw 715.02 and that uses conventional filtration shall meet the requirements of 40 CFR § 141.135 relative to treatment techniques for control of disinfection byproduct precursors.

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

Env-Dw 715.10 <u>Initial Distribution System Evaluations and Stage 2 Disinfection Byproduct Requirements</u>. The following shall comply with the requirements of 40 CFR §§ 141.600-605 relative to initial distribution system evaluations and 40 CFR §§ 141.620-629 relative to stage 2 disinfection byproducts requirements:

- (a) The O/O of a community water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light;
- (b) The O/O of a non-transient non-community water system that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light; and
- (c) The O/O of a transient non-community water system that uses chlorine dioxide or delivers water that has been treated with chlorine dioxide.

Source. #9619, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12532, eff 6-1-18

PART Env-Dw 716 FILTRATION, DISINFECTION, AND WASTE RECYCLING

Env-Dw 716.01 Purpose.

- (a) The purpose of this part is to establish requirements for filtration, disinfection, and waste recycling as specified in 40 CFR 141 Subpart H, §§70-76, 40 CFR 141 Subpart P, §§170 175, 40 CFR 141 Subpart T, §§500 571, and 40 CFR 141 Subpart W, §§700-723, which, pursuant to 40 CFR § 141.1, constitute national primary drinking water requirements.
  - (b) To meet the purpose stated in (a), above, this part establishes:
    - (1) Requirements for filtration and disinfection at public water systems supplied by a surface water source and public water systems supplied by a source of groundwater under the direct influence of surface water;
    - (2) Treatment technique requirements in lieu of maximum contaminant levels for giardia lamblia, viruses, heterotrophic plate count bacteria, legionella, cryptosporidium, and turbidity; and
    - (3) Criteria under which recycle provisions and recordkeeping requirements apply to public water systems that employ conventional filtration or direct filtration treatment and recycle spent backwash water, thickener supernatant, or liquids from dewatering processes.

<u>Source.</u> #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

Env-Dw 716.02 Applicability. This part shall apply to each public water system (PWS) supplied by:

(a) Surface water;

- (b) Groundwater under the direct influence of surface water; or
- (c) Any combination of surface water and groundwater under the direct influence of surface water.

Source. #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

#### Env-Dw 716.03 Definitions.

- (a) "Backwash water" means the water and solids contained therein which is generated by the process of reversing the flow of water back through the filter media to remove entrapped solids.
- (b) "Conventional filtration" means "conventional filtration treatment" as defined in 40 CFR § 141.2, reprinted in Appendix B.
- (c) "Cryptosporidium" means a microorganism found in raw water that can cause illness in humans and domestic animals after ingestion.
  - (d) "Direct filtration" means "direct filtration" as defined in 40 CFR § 141.2, reprinted in Appendix B.
  - (e) "Flocculation" means "flocculation" as defined in 40 CFR § 141.2, reprinted in Appendix B.
- (f) "Giardia lamblia" means a microorganism found in raw water that can colonize and reproduce in the small intestine, causing giardiasis.
  - (g) "Legionella" means "legionella" as defined 40 CFR 141.2, reprinted in Appendix B.
- (h) "PWS subject to this part" means a public water system that is in one of the categories listed in Env-Dw 716.02.
  - (i) "Sedimentation" means "sedimentation" as defined in 40 CFR § 141.2, reprinted in Appendix B.
  - (i) "Virus" means "virus" as defined at 40 CFR § 141.2, reprinted in Appendix B.
- (k) "Waste recycling" means the return of spent filter backwash water, thickener supernatant, and liquids from a treatment solids dewatering processes to the core process for treatment.

Source. #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

Env-Dw 716.04 <u>Filtration and Disinfection Required</u>. The O/O of a PWS subject to this part shall comply with the filtration and disinfection requirements of 40 CFR §§ 141.70-73.

Source. #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

Env-Dw 716.05 <u>Analytical and Monitoring Requirements</u>. The O/O of a PWS subject to this part shall comply with the analytical and monitoring requirements of 40 CFR § 141.74.

Source. #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

Env-Dw 716.06 <u>Reporting and Recordkeeping Requirements</u>. The O/O of a PWS subject to this part shall comply with the reporting and recordkeeping requirements of 40 CFR § 141.75.

Source. #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

Env-Dw 716.07 <u>Recycling Requirements</u>. The O/O of a PWS subject to this part at which water is treated by conventional filtration or direct filtration and spent backwash water, thickener supernatant, or liquids from dewatering processes are recycled shall comply with 40 CFR § 141.76.

Source. #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

Env-Dw 716.08 Enhanced Filtration and Disinfection Requirements. The O/O of a PWS subject to this part shall comply with the enhanced filtration and disinfection requirements of:

- (a) 40 CFR 141 Subpart P, §§170-175, if the PWS serves 10,000 persons or more; or
- (b) 40 CFR 141 Subpart T, §§500-571, if the PWS serves fewer than 10,000 persons.

Source. #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

Env-Dw 716.09 Enhanced Treatment for Cryptosporidium. The O/O of a PWS subject to this part shall comply with the enhanced treatment for cryptosporidium requirements of 40 CFR 141 Subpart W, §§700 -723.

Source. #9620, eff 1-1-10 (See Revision Note #2 at chapter heading for Env-Dw 700); ss by #12533, eff 6-1-18

## PART Env-Dw 717 GROUNDWATER MONITORING AND TREATMENT

Statutory Authority: RSA 485:2, V

Env-Dw 717.01 Purpose and Scope.

- (a) The purpose of these rules is to implement 40 CFR 141.400 405, known as the "Federal Ground Water Rule" or Subpart S of 40 CFR 141, by establishing procedures and standards for the protection of public health from groundwater contamination through source monitoring, treatment, and treatment monitoring.
- (b) As specified in 40 CFR 141.400(a), the requirements of this part constitute National Primary Drinking Water Regulations.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

Env-Dw 717.02 Applicability; CFR Edition; General Requirements.

- (a) This part shall apply to any groundwater system as defined in Env-Dw 717.03.
- (b) Unless otherwise noted, all references to 40 CFR in this part shall be to the 7-1-17 edition.
- (c) All PWS subject to this part shall comply with 40 CFR 141.400(c), reprinted in Appendix C.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.03 Definitions.

- (a) "4-log treatment" means the process of achieving at least 99.99 percent, or 4-log, treatment of viruses, using inactivation, removal, or a combination of 4-log virus inactivation and removal before or at the first customer.
- (b) "Approved sampling location" means the point in the system at which water samples are taken prior to treatment, that has been approved by the department pursuant to Env-Dw 708.
  - (c) "Compliance deadline" means:
    - (1) December 1, 2009, for any PWS that was subject to these rules as of November 21, 2009; and
    - (2) The deadline established in the source approval issued pursuant to Env-Dw 302 or Env-Dw 305, as applicable, or predecessor rules, for any PWS that was not subject to these rules as of November 21, 2009.
- (d) "Compliance monitoring" means the requirements for sampling and analysis established in Env-Dw 717.13 through Env-Dw 717.17 for groundwater systems that treat groundwater to at least 4-log treatment.
- (e) "Confluent growth" means "confluent growth" as defined in 40 CFR 141.2, as reprinted in Appendix B.
- (f) "Consecutive system" means "consecutive system" as defined in 40 CFR 141.2, as reprinted in Appendix B.
  - (g) "Groundwater system" means:
    - (1) Any public water system (PWS) using groundwater as the sole source of water supply;
    - (2) Any PWS that uses a mixture of surface water and groundwater, unless all groundwater is combined with surface water or with groundwater under the direct influence of surface water and is treated as specified in Env-Dw 716; and
    - (3) Any consecutive PWS that receives water from a groundwater system as described in (1) or (2), above.
- (h) "Membrane filtration" means "membrane filtration" as defined in 40 CFR 141.2, as reprinted in Appendix B.
- (i) "Provider system" means a "wholesale system" as defined in 40 CFR 141.2, as reprinted in Appendix B.
- (j) "Too numerous to count" means "too numerous to count" as defined in 40 CFR 141.2, as reprinted in Appendix B.
- (k) "Triggered monitoring" means the sampling requirements specified in Env-Dw 717.11 for groundwater systems that do not process groundwater to achieve 4-log treatment.
- (*l*) "Treatment plant" means, for the purposes of this part, the location at which a disinfectant is added to groundwater.

(m) "Valid sample" means a sample that is not invalidated under Env-Dw 717.06.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.04 Compliance Dates; Monitoring Requirements.

- (a) Subject to (b), below, no later than the compliance deadline, the O/O of a groundwater system where chlorine is added for disinfection or other water treatment purposes, or where the water is disinfected using ultraviolet radiation, ozonation, or any other chemical or non-chemical technique, shall:
  - (1) Demonstrate that:
    - a. The disinfection process being used meets 4-log treatment, as demonstrated in accordance with Env-Dw 717.13(a) and (b); or
    - b. Investigative monitoring has been conducted as specified in Env-Dw 717.09(b) and shows that the source water is free from fecal contamination; or
  - (2) Affirm in writing to the department that the O/O will undertake monitoring as specified in Env-Dw 717.09(c)(2).
- (b) The O/O of a groundwater system that provides disinfection shall not be required to conduct investigative monitoring under (a)(1)b. or (a)(2), above, if:
  - (1) The disinfection process was installed after January 1, 2006; and
  - (2) The O/O demonstrates that all bacteria sampling required under Env-Dw 709 has been free of any coliform for at least 3 years prior to the date of installation of the disinfection process.
- (c) If the O/O of a groundwater system is a political subdivision that does not vote to fund investigative monitoring, the department shall not require investigative monitoring to be done unless the state pays the costs of such monitoring.
- (d) The O/O of a groundwater system where the water is disinfected who fails to make the demonstration required by (a)(1), above, who is not exempt from investigative monitoring under (b), above, shall undertake monitoring in accordance with Env-Dw 717.09(c)(2).
- (e) After the compliance deadline, the O/O of a groundwater system where 4-log treatment is provided shall conduct compliance monitoring in accordance with Env-Dw 717.13 through Env-Dw 717.17.
- (f) After the compliance deadline, the O/O of a groundwater system where 4-log treatment is not provided shall conduct triggered monitoring as described in Env-Dw 717.11.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.05 Sample Collection and Analytical Requirements.

- (a) Chlorine or other disinfectants shall not be added to the source within one week prior to sampling.
- (b) The location at which source water samples are collected shall be:
  - (1) Prior to any treatment;
  - (2) Before or at the first customer for each groundwater source; and
  - (3) Approved by the department pursuant to Env-Dw 708.

- (c) Each sample taken for analysis shall contain at least 100 milliliters (ml) of water.
- (d) Groundwater source samples shall be analyzed as specified in Env-Dw 707 and 40 CFR 141.402(c)(2).

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.06 Invalidation of Source Water Samples.

- (a) A sample that is invalidated under this section shall not be used to meet the monitoring requirements established in this part.
- (b) The department shall invalidate a positive sample only if the laboratory establishes, in writing, that improper sample analysis caused the positive result.
  - (c) A laboratory shall invalidate a positive sample if the sample:
    - (1) Produces turbid culture in the absence of gas production using an analytical method where gas formation is examined, such as the multiple-tube fermentation technique; or
    - (2) Exhibits confluent growth or produces colonies too numerous to count with an analytical method using a membrane filter.
  - (d) A laboratory shall invalidate a negative sample if the sample contains chlorine or other disinfectant.
- (e) If a sample is invalidated under (b), (c), or (d), above, the system O/O shall collect another source water sample as specified in Env-Dw 717.05 within 24 hours of being notified of the invalidation.
- (f) The system O/O shall continue to resample within 24 hours and have the samples analyzed until a valid result is obtained.
- (g) The O/O may request an extension of the 24-hour time limit in accordance with Env-Dw 717.12 if the O/O is unable to collect samples due to circumstances beyond the O/O's control.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

#### Env-Dw 717.07 New Sources of Groundwater.

- (a) Subject to (b), below, the O/O of a groundwater system who places a new groundwater source in service after November 30, 2009, shall conduct 6 consecutive months of groundwater source sampling for  $\underline{E}$ .  $\underline{coli}$ , with at least one sample being taken prior to providing water to the public, to demonstrate that 4-log treatment is not required.
  - (b) In lieu of (a), above, the O/O shall:
    - (1) Demonstrate, during the new source approval process specified in Env-Dw 302 or Env-Dw 305, as applicable, and in accordance with Env-Dw 717.13(a) and (b), that the proposed disinfection option meets the requirements for 4-log treatment; and
    - (2) Meet the compliance monitoring requirements of Env-Dw 717.13 through Env-Dw 717.17, as applicable, within 30 days of placing the source in service.
- (c) The O/O of a new groundwater source not providing 4-log treatment who is notified that any of the source water samples collected pursuant to (a), above, are  $\underline{E}$ .  $\underline{coli}$  positive shall:
  - (1) Undertake corrective action as specified in Env-Dw 717.21; and

- (2) Institute a boil order notice in accordance with Env-Dw 709.19 and provide notice in accordance with the public notice requirements in Env-Dw 709.23.
- (d) The O/O of a new groundwater source not providing 4-log treatment who is notified that the results from samples collected in accordance to (a), above, demonstrate that the source is free from fecal contamination shall continue to be subject to the triggered monitoring requirements described in Env-Dw 717.11.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.08 New Disinfection of Groundwater Sources after December 1, 2009.

- (a) The O/O of a groundwater system who installs a new treatment process after December 1, 2009, specifically for purposes of disinfection shall meet 4-log treatment unless the O/O demonstrates, by conducting the 6 months of sampling described in Env-Dw 717.07(a), that the groundwater is free from fecal contamination.
- (b) The O/O of a groundwater system who installs a new treatment process after December 1, 2009, that includes disinfection shall meet 4-log treatment unless the system:
  - (1) Has not had any acute violations of the microbiological MCL within the past 3 years; and
  - (2) Has no outstanding significant deficiencies.
- (c) If the department determines that 4-log treatment is not required pursuant to (a) or (b), above, the O/O shall be subject to the triggered monitoring requirements of Env-Dw 717.11.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

#### Env-Dw 717.09 Investigative Monitoring to Prove Source is Not Contaminated.

- (a) Investigative monitoring to prove a source is not contaminated shall be as specified in (b) through (e), below.
  - (b) Subject to (c), below, the O/O of a groundwater system shall:
    - (1) Collect 6 source water samples prior to the compliance deadline, one each in March through August, and have the samples analyzed for <u>E</u>. <u>coli</u> in accordance with Env-Dw 717.05; or
    - (2) Collect 6 samples spaced at regular intervals, at least one week apart, within the system's normal operating season if the system does not operate in each of the months March through August, and have the samples analyzed for E. coli in accordance with Env-Dw 717.05.
- (c) If 6 samples are not collected prior to the compliance deadline, the O/O of the groundwater system shall:
  - (1) Demonstrate that 4-log treatment is being met as specified in Env-Dw 717.13(a) and (b) and be subject to compliance monitoring as specified in Env-Dw 717.13; or
  - (2) Collect one source water sample in each month for 12 months beginning in the month following the month in which the compliance deadline falls and have the samples analyzed for  $\underline{E}$ .  $\underline{\operatorname{coli}}$  in accordance with Env-Dw 717.05, except that systems that do not operate throughout the year shall collect 12 source water samples spaced at regular intervals, at least one week apart, within the system's normal operating season.

- (d) Subject to (e), below, if any of the samples taken pursuant to (b) or (c)(2), above, are  $\underline{E}$ . coli positive, the O/O of the groundwater system shall take corrective action as specified in Env-Dw 717.21, and either:
  - (1) Institute a boil order in accordance with Env-Dw 709.19 and provide notice in accordance with the public notice requirements in Env-Dw 717.23; or
  - (2) Terminate use of the contaminated source and provide water from an alternate source and provide notice in accordance with the public notice requirements in Env-Dw 717.23.
- (e) If a sample taken pursuant to (b) or (c)(2), above, is invalidated under Env-Dw 717.06, the O/O shall take another sample in:
  - (1) The same month, if notified of the invalidation in sufficient time to do so;
  - (2) The month following the months specified in (b)(1), above, if the samples are taken pursuant to (b)(1), above; or
  - (3) The week following the last regularly-scheduled sample, if the samples are taken pursuant to (b)(2) or (c)(2), above.
- (f) If the department determines, through a sanitary survey or review of land use activities surrounding the source, that conditions have changed such that a greater risk of fecal contamination exists than was originally present, the department shall direct the system O/O, in writing, to undertake investigative monitoring to determine whether the source has been negatively impacted.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

### Env-Dw 717.10 Investigative Monitoring to Discontinue 4-log Treatment.

- (a) After the compliance deadline, the O/O of a groundwater system that disinfects to 4-log treatment shall not discontinue 4-log treatment unless:
  - (1) No significant deficiencies related to source water integrity as specified in Env-Dw 717.20 were identified within the prior 5 years;
  - (2) No microbiological violations as specified in Env-Dw 709 have occurred within the prior 3 years;
  - (3) The O/O demonstrates that the source water is free from fecal contamination in accordance with (b), below; and
  - (4) The O/O has submitted a written request pursuant to (c), below, that has been approved pursuant to (d), below.
- (b) To demonstrate that the source water is free from fecal contamination, the O/O of a groundwater system shall:
  - (1) Collect a source water sample in each of 12 consecutive months and have each sample analyzed for <u>E</u>. <u>coli</u>, unless an alternate sampling schedule has been approved by the department in accordance with (f), below; and
  - (2) Provide evidence that all analytical results show the absence of E. coli.

- (c) The O/O of a groundwater system who wants to discontinue providing 4-log treatment shall request to be removed from disinfection and compliance monitoring as required in Env-Dw 717.13 through Env-Dw 717.17 by submitting the following information in writing to the department:
  - (1) The system's name and PWS identifier;
  - (2) The name, daytime telephone number, and, if available, e-mail address for the system's representative who can be contacted by the department regarding the request;
  - (3) A full explanation of why disinfection is no longer needed; and
  - (4) Documentation to show that the criteria in (a)(1)-(3) and (b), above, are met.
- (d) The department shall approve the request if the request demonstrates that the criteria specified in (a)(1)-(3) and (b) are met.
- (e) The department shall notify the system O/O of its decision on the request in writing. If the department denies the request, the notice shall specify the reason(s) for the denial.
- (f) The O/O of a groundwater system may request a reduction in the number of samples required by (b), above, by providing information to the department, in writing, which demonstrates that the disinfection was installed:
  - (1) For a system deficiency that has been corrected rather than due to a contaminated source; or
  - (2) As a proactive, safety measure, even though the system had not experienced bacteria contamination, and that the system has been free of any coliform bacteria for a minimum of 3 years.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

#### Env-Dw 717.11 Triggered Monitoring.

- (a) A groundwater system that does not provide at least 4-log treatment shall be subject to the triggered monitoring requirements specified in (b) through (e), below, upon being notified that a valid sample collected under the requirements of Env-Dw 709.02 is total coliform-positive.
- (b) Within 24 hours of notification of the total coliform-positive sample, the O/O of the groundwater system shall collect at least one groundwater source sample from each groundwater source in use at the time the total coliform-positive sample was collected and have each sample analyzed for  $\underline{E}$ .  $\underline{coli}$  and total coliform as specified in Env-Dw 717.05.
- (c) The O/O may request an extension of the 24-hour time limit in accordance with Env-Dw 717.12 if the O/O is unable to collect the samples due to circumstances beyond the O/O's control.
  - (d) If the valid sample is  $\underline{E}$ . <u>coli</u> positive, the O/O of the groundwater system shall:
    - (1) Institute a boil order in accordance with Env-Dw 709.19, and
    - (2) Provide notice in accordance with the public notice requirements in Env-Dw 717.23.
- (e) If the valid sample taken pursuant to (b), above, is  $\underline{E}$ .  $\underline{coli}$  positive, the O/O of the groundwater system shall:
  - (1) Conduct corrective action if directed by the department in accordance with Env-Dw 717.21; or

(2) If the department determines that the appropriate corrective action is not readily apparent, collect 5 additional source water samples from the same source within 24 hours of being notified of the positive <u>E</u>. <u>coli</u> result and have them analyzed for <u>E</u>. <u>coli</u> and total coliform bacteria as specified in Env-Dw 717.05.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.12 Source Monitoring: Extension Requests, Alternate Plans for Multiple Wells.

- (a) The O/O of a groundwater system subject to source monitoring who wishes to obtain an extension of the time in which to resample shall submit a written request for an extension to the department within 24 hours of notification of the positive result or invalidation.
- (b) The O/O of a groundwater system that has multiple wells and is subject to triggered monitoring who wishes to have a triggered source water monitoring plan that correlates each approved sampling location to a specific well shall submit a written request to the department for approval of such a plan. Preparation of a plan shall not constitute grounds to extend the requirement to sample within 24 hours of notification of the positive result.
  - (c) A written request submitted under (a) or (b), above, shall include:
    - (1) The system's name and PWS identifier;
    - (2) The name, daytime telephone number, and, if available, e-mail address for the system's representative who can be contacted by the department regarding the request;
    - (3) For an extension of time, a full explanation of why an extension is necessary and how much time is requested; and
    - (4) For approval of a triggered source water monitoring plan, a demonstration of which wells are associated with which distribution system sampling sites.
- (d) The department shall respond to the request in writing. If the request is denied, the department's response shall specify the reason(s) for the denial.
- (e) The department shall approve a request for an extension of time if the department determines that additional time is needed for reasons beyond the control of the system O/O.
- (f) The department shall approve a request for a triggered source water monitoring plan that correlates each sampling location to a specific well if the department determines that the proposed plan will result in samples that fulfill the intent of the sampling requirements.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

### Env-Dw 717.13 Compliance Monitoring.

- (a) As required by 40 CFR 141.403(b)(1), a groundwater system that provides at least 4-log treatment shall demonstrate to the department, in writing, before the compliance deadline, that it meets 4-log treatment.
- (b) The demonstration required by (a), above, shall include engineering, operational, and other information as necessary to demonstrate the effectiveness and reliability of treatment.
  - (c) The department shall respond in writing and, based on the technology used:
    - (1) Specify operational and monitoring requirements; and

- (2) Establish a compliance monitoring program designed to ensure that all operational and monitoring requirements that are necessary to meet the purpose of the program are met, including but not limited to minimal residual disinfectant concentrations, membrane operating or membrane integrity criteria, and alternative treatment operating criteria, as applicable.
- (d) Groundwater systems subject to compliance monitoring shall monitor in accordance with the schedule specified in Env-Dw 717.14 through Env-Dw 717.17, as applicable, to demonstrate treatment effectiveness.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

Env-Dw 717.14 <u>Compliance Monitoring for Systems with Chemical Disinfection Serving More than</u> 3,300 People.

- (a) The requirements of this section shall apply to each groundwater system serving greater than 3,300 people that meets 4-log treatment using chemical disinfection.
  - (b) The O/O of a groundwater system that is subject to this section shall:
    - (1) Continuously monitor the residual disinfectant concentration using analytical methods specified in 40 CFR 141.74(a)(2) at the approved sampling location;
    - (2) Record the lowest residual disinfectant concentration each day that water is served to the system's customers; and
    - (3) Maintain the department-determined residual disinfectant concentration every day the groundwater system serves water from the groundwater <u>Source</u>.
- (c) If a failure in the continuous monitoring equipment occurs, the O/O of a groundwater system that is subject to this section shall:
  - (1) Collect grab samples every 4 hours until the continuous monitoring equipment is returned to service; and
  - (2) Resume continuous residual disinfectant monitoring within 14 days of the failure.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

Env-Dw 717.15 <u>Compliance Monitoring for Systems with Chemical Disinfection Serving 3,300</u> People or Fewer.

- (a) The requirements of this section shall apply to each groundwater system serving 3,300 or fewer people that meets 4-log treatment using chemical disinfection.
  - (b) The O/O of a groundwater system that is subject to this section shall:
    - (1) Monitor the residual disinfectant concentration using analytical methods specified in 40 CFR 141.74(a)(2) at the approved sampling location, either continuously or on a daily basis by taking a daily grab sample during the hour of peak flow or another time designated by the department;
    - (2) Record the residual disinfectant concentration each day that water is served to the system's customers; and
    - (3) Maintain the department-determined residual disinfectant concentration every day the groundwater system serves water from the groundwater <u>Source</u>.

(c) The O/O of a groundwater system that is subject to this section shall collect follow-up grab samples every 4 hours if any daily grab sample measurement falls below the established residual concentration level, until the required residual concentration is met.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

# Env-Dw 717.16 Operation and Compliance Monitoring for Membrane Filtration.

- (a) Groundwater systems using membrane filtration to meet 4-log treatment shall monitor the membrane filtration process in accordance with the monitoring requirements and specifications established by the department pursuant to (c), below, upon review of the information submitted in accordance with Env-Dw 717.13.
  - (b) Membrane filtration shall meet 4-log treatment requirements only if:
    - (1) The membrane has an absolute molecular weight cut-off (MWCO), or an alternate parameter that describes the exclusion characteristics of the membrane, that can reliably achieve at least 4-log removal of viruses;
    - (2) The membrane process is operated in accordance with compliance requirements specified by the department pursuant to Env-Dw 717.13(c); and
    - (3) The integrity of the membrane is intact.
- (c) The department shall establish monitoring requirements and specifications designed to ensure that the membrane filtration technology being used meets 4-log treatment, using continuous monitoring of filtered water quality turbidity or particle counts, or both.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.17 Operation and Compliance Monitoring for Alternative Treatment.

- (a) Groundwater systems using alternative treatment to meet 4-log treatment shall operate and monitor the alternative treatment in accordance with the operational and monitoring requirements established pursuant to (b), below, deemed necessary to demonstrate achievement of 4-log treatment.
- (b) The department shall establish operational and monitoring requirements designed to ensure that the alternative treatment actually meets 4-log treatment based on the type of technology used by the system.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

# Env-Dw 717.18 Compliance Monitoring Reporting Requirements.

- (a) The O/O of a groundwater system that provides 4-log treatment of viruses using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal shall report the information specified in (c) through (e), below, as applicable, monthly to the department by the 10<sup>th</sup> day of the month immediately following the month for which the report is being provided.
- (b) The O/O of a groundwater system that provides 4-log treatment shall notify the department as soon as possible, but in no case later than the end of the next business day, any time the system fails to meet any of the requirements established for the system for greater than 4 hours, including, but not limited to, minimum residual disinfectant concentration, membrane operating criteria or membrane integrity, and alternative treatment operating criteria.

- (c) The O/O of a groundwater system that provides 4-log treatment using chlorine disinfection shall report the following information:
  - (1) For each day, the lowest measured residual disinfectant concentration, in milligrams per liter (mg/L), in water entering the distribution system;
  - (2) The daily residual disinfectant concentration, in mg/L, in water measured at the approved sampling location at or before the first service connection;
  - (3) The disinfectant contact time (CT), in minutes, associated with the calculated peak flow rate for the system used for calculating the CT value;
  - (4) The daily measurement of pH of disinfected water following the point of chlorine disinfection;
  - (5) The daily measurement of water temperature, in degrees Celsius, following each point of disinfection;
  - (6) The daily CT value calculated for each treatment plant before or at the first customer; and
  - (7) The daily determination of whether disinfection achieves at least 4-log treatment.
- (d) The O/O of a groundwater system that provides 4-log treatment using membrane filtration shall report the information specified in the department's approval of the alternative treatment in accordance with Env-Dw 717.16.
- (e) The O/O of a groundwater system that provides 4-log treatment using alternative treatment shall report the information specified in the department's approval of the alternative treatment in accordance with Env-Dw 717.17.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.19 Compliance Monitoring Recordkeeping Requirements.

- (a) The O/O of a groundwater system conducting compliance monitoring, including provider systems, shall maintain records according to this section.
  - (b) Records of minimum disinfectant residual shall be retained for 10 years.
  - (c) Subject to (d), below, the following records shall be retained for 5 years:
    - (1) The lowest daily residual disinfectant concentration;
    - (2) The date and duration of any failure to maintain the minimum residual disinfectant concentration for a period of more than 4 hours;
    - (3) The date the O/O contacted the department with notification of the failure to maintain the minimum residual disinfectant concentration for a period of more than 4 hours and the name of the individual at the department to whom the O/O spoke;
    - (4) The compliance requirements for membrane filtration and parameters specified by department for the approved alternative treatment, as applicable; and
    - (5) The date and duration of any failure to meet the membrane operating, membrane integrity, or alternative treatment operating requirements for more than 4 hours.

(d) If the O/O is notified in writing that an enforcement action or other legal action is pending against the system, the O/O shall retain all records for the longer of the time period specified in (b) or (c), above, if applicable, or 6 months after the date of the final decision in the action.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

Env-Dw 717.20 <u>Significant Deficiencies</u>. Any of the following conditions shall constitute a significant deficiency:

- (a) Well casing is buried;
- (b) Top of well can be flooded;
- (c) Well is not sealed;
- (d) Unsanitary material or debris is stored or discarded in the sanitary radius of a well;
- (e) Well is not constructed in accordance with applicable requirements;
- (f) Well casing extension does not meet applicable requirements;
- (g) Well is damaged or otherwise subject to contamination;
- (h) Operation, maintenance, or monitoring of disinfection processes does not meet applicable requirements;
  - (i) System has low or negative pressures that could result in entry of contaminants;
  - (j) System lacks cross connection control program or devices, if applicable;
  - (k) Pump house is subject to flooding;
  - (1) Pump house conditions are unsanitary;
  - (m) System does not have a certified operator even though one is required by Env-Dw 502;
  - (n) Certified operator, if required, is below the appropriate grade;
- (o) Inspection, internal cleaning, and maintenance of storage tank(s) does not meet applicable requirements;
  - (p) Water storage tank is subject to contamination;
  - (q) Facility operations are not inspected for unsanitary conditions on a regular basis;
  - (r) Monitoring, reporting, and recordkeeping are not being done as required; and
  - (s) Any other significant deficiency identified in Env-Dw 720.03.

Source. #9600, eff 11-21-09; amd by #9758, eff 7-30-10; ss by #12525, eff 6-1-18

Env-Dw 717.21 Notice of Significant Deficiencies; Corrective Actions and Corrective Action Plans.

(a) The department shall inform the O/O and certified operator, if the system has a certified operator, of the groundwater system of all significant deficiencies in writing.

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(b) The notice issued pursuant to (a), above, shall require the O/O to:

- (1) Implement any corrective action(s) specified in the notice for which consultation or prior approval from the department is not required within 120 days or such earlier time as is specified pursuant to (e), below; and
- (2) Consult with the department within 30 days of receiving written notice for the purpose of developing a corrective action plan (CAP) as specified in (f), below, for any corrective action(s) not covered by (1), above.
- (c) The O/O of a groundwater system shall consult with the department within 10 days of receiving written notice from a laboratory that a groundwater source sample collected in accordance with Env-Dw 717.11 is positive for <u>E</u>. <u>coli</u> to determine what corrective action needs to be taken or whether a CAP as specified in (f), below needs to be developed.
- (d) The corrective action(s) specified in the notice shall consist of one or more of the following, as necessary to correct the problem and protect public health:
  - (1) Correct significant deficiencies;
  - (2) Provide an alternate source of water;
  - (3) Eliminate the source of contamination; or
  - (4) Provide treatment that reliably achieves 4-log treatment, as specified in Env-Dw 717.13.
  - (e) The department shall specify a compliance deadline of less than 120 days if:
    - (1) The actions to be taken can reasonably be implemented in a shorter period of time; and
    - (2) An earlier date is needed to protect public health.
- (f) If a system O/O is required to develop a corrective action plan (CAP) pursuant to (b)(2) or (c), above, then within 30 days after the required consultation, or by such later date established by agreement with the department, the O/O shall develop and submit to the department a CAP that identifies the action(s) that will be taken to correct the system's deficiencies and the schedule upon which the action(s) will be taken.
- (g) If any of the significant deficiencies cannot be corrected within 120 days of the date of a notice issued pursuant to (a), above, or received from the laboratory pursuant to (c), above, the CAP submitted by the system O/O shall identify interim measures that will be taken in order to protect the health and safety of persons served by the system pending final action.
  - (h) The department shall approve a CAP proposed by the system O/O if:
    - (1) The action(s) and schedule for taking the action(s) will correct all problems within a time frame that is protective of public health; and
    - (2) The CAP identifies interim measures that will be taken to address any significant deficiencies that cannot be corrected within 120 days of the date of the notice in order to protect the health and safety of persons served by the system pending final action.
- (i) The O/O shall not make any modifications to the approved CAP without first obtaining approval for the modifications from the department in accordance with (j) and (k), below.
- (j) To request approval for modifications to the action(s) or schedule in an approved CAP, the O/O shall submit a request in writing to the department that explains the requested modification(s) and the reason(s) why the CAP as modified meet the criteria for approval specified in (k), below.

- (k) The department shall approve a modification to a CAP if:
  - (1) The modification was made necessary due to circumstances beyond the control of the system O/O; and
  - (2) The CAP as modified will correct all remaining problems and be equally as protective of public health.
- (l) Within 120 days of the date of a notice issued pursuant to (a) or (c), above, the O/O of a groundwater system shall:
  - (1) Have fully corrected all significant deficiencies; or
  - (2) Be in compliance with a CAP approved by the department pursuant to (h), above.
- (m) The O/O of a groundwater system who has been directed to take corrective action or to implement a CAP shall notify the department within 30 days of completion of the corrective action or CAP, as applicable.
- (n) A system O/O shall be subject to enforcement as specified in RSA 485:58 for any failure to correct the deficiency(ies) and for any failure to comply with an approved CAP.

<u>Source.</u> #9600, eff 11-21-09; ss by #9758, eff 7-30-10; ss by #12525, eff 6-1-18

### Env-Dw 717.22 Violations.

- (a) Failure to meet the monitoring requirements specified in Env-Dw 717.05 through Env-Dw 717.09 and Env-Dw 717.11 through Env-Dw 717.17 shall constitute a monitoring violation.
- (b) Failure to maintain at least 4-log treatment shall constitute a treatment technique violation if the failure is not corrected within 4 hours of determining the system is not maintaining at least 4-log treatment in accordance with Env-Dw 717.13 through Env-Dw 717.17.
- (c) Failure to submit the monthly reports required by Env-Dw 717.18 shall constitute a reporting violation.
- (d) Failure to meet the treatment technique requirements specified in Env-Dw 717.21, after notification of a significant deficiency or fecal-contaminated source water shall constitute a treatment technique violation.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

### Env-Dw 717.23 Public Notification, Consumer Confidence Report, & Special Notice.

- (a) The O/O of a groundwater system at which any violation described in Env-Dw 717.22 occurs shall conduct standard public notice in accordance with Env-Dw 801.
- (b) The O/O of a groundwater system notified of valid sample that is <u>E</u>. <u>coli</u> positive, including the O/Os of consecutive systems served by such a groundwater source, shall conduct acute public notice as specified in Env-Dw 801.
- (c) The O/O of a community groundwater system shall notify the system's customers through the consumer confidence reporting (CCR) requirements of Env-Dw 811, if:
  - (1) It receives notice from the department of a significant deficiency identified in Env-Dw 717.20, that has not been corrected;

- (2) A groundwater source sample was  $\underline{E}$ . coli positive; or
- (3) The PWS has discontinued the use of a contaminated Source.
- (d) The information noted in (c)(1) or (2), above, shall be reported in the CCR annually until the deficiency,  $\underline{E}$ . coli contamination, or violation has been corrected and confirmation of the correction has been received from the department.
- (e) The O/O of a non-community groundwater system shall notify its customers of a significant deficiency, as specified in Env-Dw 717.20:
  - (1) That has not been corrected within 12 months of being notified of the deficiency; and
  - (2) Continue to notify the public annually until the significant deficiency is corrected.
  - (f) The notice required by (e), above, shall include:
    - (1) The nature of the significant deficiency and the date it was identified by the department; and
    - (2) A description of the approved plan and schedule for correction of the significant deficiency, including interim measures, progress to date, and any interim measures completed.
- (g) In a community where the population of non-English speaking residents exceeds 20% of the community population, the notice shall contain:
  - (1) Information in the appropriate language(s) regarding the importance of the notice; or
  - (2) A telephone number or address, in the appropriate language, at which customers can contact the system to obtain a translated copy of the notice or assistance in the appropriate language.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

## Env-Dw 717.24 Groundwater Rule General Recordkeeping Requirements.

- (a) In addition to the requirements of Env-Dw 717.19 and Env-Dw 718, the O/O of a groundwater system shall maintain the records described in (b) through (d), below, for the time period specified.
- (b) As required by 40 CFR 141.405(b)(1), documentation of corrective actions shall be retained for 10 years.
  - (c) Documentation of notice to the public as required under Env-Dw 800 shall be retained for 3 years.
  - (d) Records of invalidation of <u>E</u>. <u>coli</u> positive samples shall be retained for 5 years.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

### Env-Dw 717.25 Groundwater Rule Consecutive System Notification and Recordkeeping Requirements.

- (a) A consecutive groundwater system O/O that has a total coliform-positive sample collected under Env-Dw 709 shall:
  - (1) Notify the provider system(s) within 24 hours of being notified of the total coliform-positive sample; and
  - (2) If the consecutive system has a source that supplies water to the distribution system, conduct triggered monitoring as specified in Env-Dw 717.11.

- (b) A provider system that does not provide 4-log treatment and receives notice from a consecutive system it serves that a sample collected under Env-Dw 709 is total coliform-positive shall:
  - (1) Collect a sample from each groundwater source and analyze each sample for  $\underline{E}$ .  $\underline{coli}$  and total coliform, in accordance with Env-Dw 717.05, within 24 hours of being notified of the total coliform-positive sample; and
  - (2) Conduct all triggered monitoring as specified in Env-Dw 717.11.
  - (c) A provider system that receives notice that its groundwater source sample is <u>E</u>. <u>coli</u> positive shall:
    - (1) Notify all consecutive systems served by the water source within 24 hours of being notified of the <u>E</u>. <u>coli</u> positive result; and
    - (2) Conduct all triggered monitoring requirements as specified in Env-Dw 717.11.
- (d) Documentation of notification to the provider system(s) of total-coliform positive samples that are not invalidated under Env-Dw 717.06 shall be kept for a period of at least 5 years.

Source. #9600, eff 11-21-09; ss by #12525, eff 6-1-18

#### PART Env-Dw 718 RECORDKEEPING

Env-Dw 718.01 Required Records. Each O/O shall:

- (a) Comply with the recordkeeping requirements of 40 CFR § 141.33; and
- (b) Maintain such additional records as are specified in subtitle Env-Dw for particular facets of PWS ownership, operation, and maintenance.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12669, eff 1-1-19

Env-Dw 718.02 Production of Records.

- (a) The O/O:
  - (1) Shall provide copies of this information to customers and state and local officials upon reasonable request; and
  - (2) May charge customers a reasonable fee for such copies.
- (b) An O/O shall submit to the department within the time stated in the request, copies of any records required to be maintained under subtitle Env-Dw, or copies of any documents in existence at the time of the request that the department is entitled to inspect pursuant to the authority of RSA 485, the New Hampshire Safe Drinking Water Act.
- (c) Any laboratory performing analyses as specified in Env-Dw 719.03 shall make records of sample collection and analysis available to the department upon request.

Source. #12669, eff 1-1-19

### PART Env-Dw 719 REPORTING

Env-Dw 719.01 <u>Definitions</u>. For purposes of this part, the following definitions shall apply:

- (a) "Compliance monitoring data portal (CMDP)" means the data portal created and maintained by the US EPA to collect data required under the federal Safe Drinking Water Act;
- (b) "Electronic reporting system for drinking water monitoring data" means the electronic data collection system implemented by the department to collect PWS monitoring data prior to the CMDP becoming available; and
  - (c) "Third-party laboratory" means a laboratory that is not owned or otherwise controlled by the O/O.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9701, eff 5-1-10; ss by #12669, eff 1-1-19

Env-Dw 719.02 Required Reporting and Public Notice.

- (a) An O/O shall submit all monitoring data and other required information as specified in this part.
- (b) An O/O shall provide public notice as specified in Env-Dw 800.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9701, eff 5-1-10; ss by #12669, eff 1-1-19

Env-Dw 719.03 Third-Party Laboratory Obligations.

- (a) Before an O/O submits samples for analysis to meet monitoring requirements to a third-party laboratory, the O/O and third-party laboratory shall enter into a binding written agreement that requires the laboratory to submit all information required by, and as specified in, Env-Dw 719.05.
- (b) Each time an O/O submits any sample to a third-party laboratory for the purpose of meeting a monitoring requirement, the O/O shall inform the laboratory that the analyses being requested are to meet department monitoring requirements.

Source. (See Revision Note #1 at chapter heading for Env-Dw 700) #9701, eff 5-1-10; ss by #12669, eff 1-1-19

Env-Dw 719.04 Registering for Electronic Reporting System.

- (a) In order to access the electronic reporting system, the O/O or third-party laboratory shall register as a data provider under the department's OneStop portal at <a href="https://www4.des.state.nh.us/OnestopDataProviders/DESLogin.aspx">https://www4.des.state.nh.us/OnestopDataProviders/DESLogin.aspx</a>, by:
  - (1) Providing the information required in (b), below;
  - (2) Selecting the "DWGB Certified Lab Upload" or "DWGB Login Samples" as applicable; and
  - (3) Accepting the agreement specified in (c), below.
  - (b) The O/O or third-party laboratory shall provide the following information:
    - (1) The type of requestor, specifically consultant, contractor, individual, federal government, laboratory, local government, non-profit business, other business, PWS contact, state government;
    - (2) The first and last name of the individual who is applying for access;

- (3) The applicant's email address;
- (4) A user name and password;
- (5) The name, mailing address, daytime telephone including area code and extension, if any, email address, and fax number including area code of the business or other organization with which the requestor is affiliated;
- (6) If the requestor has another telephone number, the telephone number including area code and extension, if any; and
- (7) If the requestor has another email address, the secondary email address.
- (c) The agreement between the data provider and the department shall be as follows:

"I understand that I am responsible for the accuracy of the information submitted in this request for a PIN and Password that will allow me to access, via the Internet, certain information held by the Department of Environmental Services.

I further understand that the information I am submitting and/or requesting access to is security-sensitive, and I agree to (1) protect the PIN and Password provided to me by the Department of Environmental Services to prevent any unauthorized use thereof; (2) protect against further dissemination and/or unauthorized use of any and all information obtained using the PIN and Password to the extent reasonable in light of the legitimate use for which the information is needed, as described above.

I affirm that the information I am submitting with this request is true, complete, and not misleading. I understand that the submittal of false, incomplete, or misleading information could result in denial or revocation of data provider access and/or could subject me to the criminal penalties established for falsification in official matters, currently in RSA 641.

I understand that by clicking on I AGREE, I am solely responsible for the PIN and Password I am about to receive and for any and all information collected using the PIN and Password, and that NO LIABILITY IS INCURRED BY THE STATE by reason of providing the requested access.

I understand that if I do not agree to be the sole responsible party, I should click CLOSE to discontinue the PIN/Password request process."

Source. #12669, eff 1-1-19

## Env-Dw 719.05 Reporting Method Prior to CMDP Activation.

- (a) Until such time as notification is made that the CMDP is available for use, the following information shall be submitted as specified in (b), below, for each sample analyzed to meet monitoring requirements:
  - (1) The PWS identifier of the system;
  - (2) The name of the PWS and the city or town in which the system is located;
  - (3) Sample collection information, including:
    - a. The sample location identifier and name; and
    - b. The date and time the sample was collected;

- (4) Whether the data being submitted is original or a revision;
- (5) The name of contaminant(s) or contaminant code(s) for which the sample was collected and tested;
- (6) Whether the sample is a routine, repeat, make-up, confirmation, or replacement sample;
- (7) The monitoring period for which the sample was collected, by month or quarter, as applicable, and year;
- (8) The first and last name and daytime telephone number including area code of the individual who collected the sample, or the person responsible for any sample(s) collected by individual homeowners:
- (9) The date and time the sample was received by the laboratory;
- (10) The temperature of the sample(s) upon receipt, in degrees Celsius;
- (11) The accreditation identifier of the laboratory that performed the analysis;
- (12) The laboratory sample identifier and batch identifier, if different;
- (13) The results of the analysis, including units and an explanation of whether the result is an actual or calculated value, and any qualifiers associated with the result(s);
- (14) The date and time the sample was:
  - a. Prepared for analysis, if applicable; and
  - b. Analyzed;
- (15) The analytical method used, including reportable and method detection limits, if applicable, with applicable units; and
- (16) If the sample was initially received by a laboratory other than the one performing the analysis, the name, accreditation identifier, and daytime telephone number including area code of the laboratory that initially received the sample.
- (b) The required information shall be submitted using the electronic reporting system for drinking water monitoring data.

Source. #12669, eff 1-1-19

Env-Dw 719.06 Reporting Content and Method When CMDP Is Available. When the CMDP becomes available, then:

- (a) The department shall notify each O/O of the date the system will be available for use;
- (b) The information regarding samples analyzed to meet monitoring requirements shall be the information required by the CMDP; and
  - (c) The information required by (b), above, shall be submitted to the department using the CMDP.

Source. #12669, eff 1-1-19

# Env-Dw 719.07 Timing of Reporting.

- (a) Except where a shorter period is specified, such as where there is an exceedance of an acute contaminant MCL as specified in Env-Dw 801, the O/O or third-party laboratory, as applicable, shall report to the department within 2 business days of the analysis being completed the results of any test measurement or analysis required by:
  - (1) Env-Dw 723 relative to non-central treatment; or
  - (2) Env-Dw 709 through Env-Dw 715 and Env-Dw 717 relative to water quality monitoring.
- (b) The O/O or third-party laboratory, as applicable, shall notify the department by telephone as soon as possible, but within 24 hours, of:
  - (1) The presence of fecal coliforms or E. coli in any sample; and
  - (2) The exceedance of any nitrate or nitrite MCL as specified in Env-Dw 704.02, Table 704-1.

Source. #12669, eff 1-1-19

#### PART Env-Dw 720 INSPECTIONS: SIGNIFICANT DEFICIENCIES: ASSESSMENTS

Env-Dw 720.01 Entry and Inspection of Public Water Systems and Privately Owned Redistribution Systems.

- (a) As specified in RSA 485:41, V, in order to determine compliance with RSA 485 and rules adopted under RSA 485, specifically Env-Dw 100 et seq., the department shall enter, and authorize its employees and agents to enter, the premises of public water systems (PWS) and privately owned redistribution systems (PORS) for the purpose of carrying out inspections or assessments, taking water samples, and inspecting any and all records and facilities of such PWS and PORS (systems).
- (b) The owner, operator, or any other person(s) in charge of a PWS's or PORS's premises, facilities, or records, or any combination thereof, or in possession or in charge of any other existing information that will assist the department in conducting the inspection or assessment of the PWS or PORS shall allow staff of the department to:
  - (1) Enter the premises and facilities under the control of such person for the purpose of evaluating the adequacy of the facilities, equipment, processes, controls, and operation and maintenance of the system for producing and distributing safe drinking water to persons served by the system;
  - (2) Conduct tests on any feature of the system, including, as applicable, its raw water source, treated water, or distribution system water; and
  - (3) Review all records and files of the system, along with any other existing information that will assist the department in conducting the inspection or assessment.
- (c) If any tests conducted pursuant to (b)(2), above, are deemed necessary by the department for the protection of the health or safety of persons served by the system, the costs of the tests shall be charged to the system's owner.
- (d) The owner, operator, or other person in charge of the premises, facilities, or records of the system being inspected or assessed may request identification from the inspector or assessor.

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15

## Env-Dw 720.02 Sanitary Survey Field Inspections.

- (a) Subject to (b), below, at least 24 hours in advance of a pending inspection the department shall notify:
  - (1) The certified operator, for any system that has a certified operator; or
  - (2) The owner of the system, for any system that does not have a certified operator.
- (b) The department shall not give advance notice if evidence indicates that a public health threat or other violation of Env-Dw 100 et seq. exists.
  - (c) The sanitary survey shall cover the following areas:
    - (1) The system's layout and general information, such as the number of persons served by the system and whether the system serves residential, commercial, or industrial users;
    - (2) Water quality;
    - (3) Monitoring, reporting, and data verification;
    - (4) Sources of supply;
    - (5) Storage facilities;
    - (6) Treatment facilities;
    - (7) Pumping facilities, including pumps, pump houses, and controls;
    - (8) Distribution system;
    - (9) System management and operation;
    - (10) Technical, financial, and managerial capacity;
    - (11) Owner and operator compliance with Env-Dw 100 et seq.;
    - (12) Emergency preparedness planning;
    - (13) Security; and
    - (14) Any other aspect of the system that could influence the ability of the system to produce and distribute safe drinking water.
  - (d) The minimum frequency of sanitary surveys shall be as shown in Table 720-1, below:

Table 720-1: <u>Frequency of Sanitary Surveys</u>

Type of System	Frequency of Sanitary Survey
Community	3 years
Non-transient non-community	3 years
Transient non-community	5 years

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15

## Env-Dw 720.03 Significant Deficiencies.

- (a) Any of the following conditions shall constitute a significant deficiency for a PWS or a PORS, if applicable:
  - (1) A potential contamination source that poses a risk to public health and that is not already subject to a monitoring or control plan is present in the sanitary protective area;
  - (2) System records show that the source has inadequate capacity to meet current demands or that the system is otherwise unable to provide sufficient water to meet current demands;
  - (3) A non-approved source is connected to the system, regardless of whether the source is in use;
  - (4) Existing treatment facilities and processes are not operative;
  - (5) Treatment has been installed or modified without prior approval from the department, and the installation or modification could adversely affect public health;
  - (6) System has low or negative pressures that could result in entry of contaminants;
  - (7) System lacks a cross-connection control program or cross-connection devices, if applicable;
  - (8) System lacks backflow prevention device, if required;
  - (9) System has an inoperative well pump;
  - (10) System lacks an operative duplicate booster pump, if required;
  - (11) System's pump house is subject to flooding;
  - (12) System's hydraulics, pumping facilities, storage capacity, or distribution facilities have been modified in a way that could adversely affect public health;
  - (13) System has electrical hazards in or around the pump house;
  - (14) System does not have a certified operator even though one is required;
  - (15) System's certified operator is below the required grade;
  - (16) System's water storage tank is subject to contamination;
  - (17) System does not have a schedule for performing regular system maintenance;
  - (18) System has pumping facilities that are not secured or a well that is not protected from tampering;
  - (19) System does not have a properly-operating meter or other means to measure flow for each incoming source, if required;
  - (20) System does not have individual sampling taps or other means to obtain discrete samples for each source;
  - (21) System is a community water system and does not have an emergency plan available for review when requested;
  - (22) Required monitoring, reporting, and recordkeeping are not being done as required;

- (23) System has any other violation(s) of applicable rules that pose(s) a significant risk to public health; and
- (24) The system does not have available for review by the department the record drawings or other distribution system plans required by the applicable provisions of Env-Dw 405.33(d), Env-Dw 406.26(c), and Env-Dw 504.08.
- (b) Any PWS using a groundwater source also shall be subject to the significant deficiencies identified in Env-Dw 717.20.

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15

### Env-Dw 720.04 Notice of Significant Deficiencies; Corrective Action.

- (a) The department shall inform the system's owner and certified operator, if the system has a certified operator, of all significant deficiencies in writing.
  - (b) The notice issued pursuant to (a), above, shall require the owner to:
    - (1) Implement any corrective action(s) specified in the notice for which consultation or prior approval from the department is not required within 120 days or such earlier time as is specified pursuant to (d), below; and
    - (2) Consult with the department within 30 days of receiving written notice for the purpose of developing a corrective action plan (CAP) as specified in Env-Dw 720.05 for any corrective action(s) not covered by (1), above.
- (c) The corrective action(s) specified in the notice shall consist of one or more of the following, as necessary to correct the problem and protect public health:
  - (1) Correct significant deficiencies;
  - (2) Provide an alternate source of water; or
  - (3) Eliminate the source of contamination.
  - (d) The department shall specify a compliance deadline of less than 120 days if:
    - (1) The actions to be taken can reasonably be implemented in a shorter period of time; and
    - (2) An earlier date is needed to protect public health.
- (e) The system owner shall comply with any expedited actions or additional actions required by Env-Dw 801.04 relative to turbidity MCL and treatment technique violations or Env-Dw 801.05(a)-(c) relative to <u>E</u>. <u>coli</u> MCL violations.
- (f) A system owner who has been directed to take corrective action pursuant to this section shall notify the department within 30 days of completing the corrective action that the corrective actions have been taken, by submitting documentation of completion, including photographs as appropriate.

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15; ss by #12420, eff 11-18-17

#### Env-Dw 720.05 Corrective Action Plan (CAP).

- (a) If a system owner is required to develop a corrective action plan (CAP) pursuant to Env-Dw 720.04(b)(2), then within 30 days after the required consultation, or by such later date established by agreement with the department, the owner shall develop and submit to the department a CAP that identifies the action(s) to be taken to correct the system's deficiencies and the schedule upon which the action(s) will be taken.
- (b) If any of the significant deficiencies cannot be corrected within 120 days of the date of the notice issued pursuant to Env-Dw 720.04(a), the CAP submitted by the system owner shall identify interim measures that will be taken in order to protect the health and safety of persons served by the system pending final action.
  - (c) The department shall approve a CAP proposed by the system owner pursuant to (a), above, if:
    - (1) The action(s) and schedule for taking the action(s) will correct all problems within a time frame that is protective of public health; and
    - (2) The CAP identifies interim measures that will be taken to address any significant deficiencies that cannot be corrected within 120 days of the date of the notice in order to protect the health and safety of persons served by the system pending final action.
- (d) The owner shall not make any modifications to the approved CAP without first obtaining approval for the modifications from the department in accordance with (e) and (f), below.
- (e) To request approval for modifications to the action(s) or schedule in an approved CAP, the owner shall submit a request in writing to the department which explains the requested modification(s) and the reason(s) why the CAP as modified meet the criteria for approval specified in (f), below.
  - (f) The department shall approve a modification to a CAP if:
    - (1) The modification was made necessary due to circumstances beyond the control of the system owner; and
    - (2) The CAP as modified will correct all remaining problems and be equally protective of public health.
- (g) Within 5 business days of completing an action required by a CAP, the system owner shall notify the department that the action has been completed by submitting documentation of completion, including photographs as appropriate.

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15

## Env-Dw 720.06 Compliance.

- (a) Within 120 days of the date of the notice issued pursuant to Env-Dw 720.04(a), the system owner shall:
  - (1) Have fully corrected all significant deficiencies; or
  - (2) Be in compliance with a CAP approved by the department pursuant to Env-Dw 720.05(c).

(b) A system owner shall be subject to enforcement as specified in RSA 485:58 for any failure to correct the deficiency(ies) or for any failure to comply with a CAP approved pursuant to Env-Dw 720.05(c).

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15

### Env-Dw 720.07 Assessments.

- (a) Subject to (b), below, after a coliform assessment is triggered as specified in Env-Dw 709.22, the PWS owner shall conduct a level I or level II assessment, as applicable. The PWS owner may authorize an agent who meets the qualifications specified in Env-Dw 720.08 or Env-Dw 720.09, as applicable, to conduct the assessment, but such authorization shall not relieve the owner from liability if the assessment or follow-up actions, or both, are not completed as required.
- (b) If a level II assessment is triggered by an <u>E. coli</u> MCL violation, the department or its agent shall conduct the level II assessment.
- (c) If assessment triggers are recurring and no cause has been identified, the department shall consult with the PWS owner to determine whether the department or another qualified individual will conduct the assessment.
  - (d) The assessment shall:
    - (1) Be performed by one or more individuals who meet the qualifications specified in Env-Dw 720.08 or Env-Dw 720.09, as applicable;
    - (2) Include an on-site inspection;
    - (3) Be conducted to identify the possible presence of sanitary defects or defects in distribution system coliform monitoring practices, or both; and
    - (4) Be conducted within 30 days after notification from the department that an assessment has been triggered as specified in Env-Dw 709.22.
- (e) The assessment shall evaluate situations that might have impacted normal operations as well as water quality data and other system records related to bacterial contamination or treatment, or both, including but not limited to the following:
  - (1) Atypical events that might affect distributed water quality or indicate that distributed water quality was impaired, including but not limited to main breaks, hydrant flushing, impacts from weather events including flooding, power failures, treatment process upsets, and loss of pressure;
  - (2) System maintenance and operation issues, including water storage and pumping facilities, and sanitary conditions that could affect distributed water quality;
  - (3) Source and treatment considerations and records that bear on distributed water quality, including but not limited to:
    - a. Treatment operations, maintenance, testing, and operation; or
    - b. Well integrity including casing, cap, seal, and vent;

- (4) Existing water quality monitoring data, including but not limited to compliance monitoring data, system evaluation monitoring data, disinfectant residual concentration, if disinfecting, heterotrophic plate count, if available, and treatment process performance parameters, if treatment is present; and
- (5) Water quality sampling locations, sampling protocol, sample processing, and techniques.
- (f) A level II assessment shall:
  - (1) Be more comprehensive than a level I assessment;
  - (2) Include a more detailed physical inspection of all suspected facilities and locations to identify all potential causes of the coliform assessment trigger; and
  - (3) Include additional water quality monitoring if needed to identify potential causes.

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15

### Env-Dw 720.08 Qualifications of Level I Assessors.

- (a) A PWS owner shall ensure that each individual performing a level I assessment is familiar with the operation and management of the PWS to be assessed.
  - (b) A level I assessment shall be conducted by:
    - (1) For transient PWS, the owner or the owner's authorized agent;
    - (2) For non-transient, non-community PWS, the owner, the owner's authorized agent, or an operator certified at a grade comparable to or higher than the required grade for that PWS; and
    - (3) For community water systems, an operator certified at a grade comparable to or higher than the required grade for that PWS.

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15

#### Env-Dw 720.09 Qualifications of Level II Assessors.

- (a) A level II assessment other than one conducted by the department pursuant to Env-Dw 720.07(b) shall be conducted by:
  - (1) For transient PWS, an operator certified at Grade 1A or higher; and
  - (2) For non-transient, non-community PWS and community PWS, an operator certified at a grade comparable to or higher than the required grade for that PWS.
- (b) The individual(s) who conducted a level I assessment may participate in a level II assessment at the same PWS but shall not conduct the level II assessment without at least one additional qualified individual.

Source. (See Revision Note #3 at chapter heading for Env-Dw 700) #9760, eff 7-30-10; ss by #10771, eff 2-1-15

# Env-Dw 720.10 Report of Assessment.

- (a) Subject to (d), below, the system owner shall submit a written report of the completed level I or level II assessment, as applicable, to the department within 30 days of notification by the department that an assessment has been triggered as specified in Env-Dw 709.22.
  - (b) The assessment report required by (a), above, shall:
    - (1) Be prepared and signed by the individual who performed the assessment;
    - (2) Identify the date(s) on which the assessment was performed;
    - (3) Contain the results of investigation of items listed in Env-Dw 720.07(d);
    - (4) Identify each sanitary defect detected;
    - (5) Describe each corrective action that has been completed; and
    - (6) Explain each corrective action that has been initiated but not completed or that is planned but not yet initiated, with a proposed timetable for completing each corrective action identified.
  - (c) If no sanitary defects were identified, the assessment report shall so state.
- (d) If the department conducts a level II assessment pursuant to Env-Dw 720.07(b) or (c), the department staff who conducted the assessment shall prepare the assessment report in accordance with (b), above, and provide a copy to the PWS owner.

Source. #10771, eff 2-1-15

# Env-Dw 720.11 Review and Approval of Assessment Report; Follow-Up Action.

- (a) The department shall review each assessment report prepared pursuant to Env-Dw 720.10(a) to determine:
  - (1) Whether a likely cause of the trigger has been identified; and
  - (2) Whether the corrective actions that have been completed, if any, or that are in progress or being planned, if any, are likely to address the cause of the trigger in a timeframe that is protective of the health and safety of persons served by the system.
- (b) The department shall contact the owner for consultation if it determines that the assessment report does not:
  - (1) Demonstrate that the evaluations required by Env-Dw 720.07(d) were completed;
  - (2) Contain all information required by Env-Dw 720.10(b); or
  - (3) Include corrective actions and a timeframe that are protective of the health and safety of persons served by the system.
- (c) If the department determines, after consultation with the owner or based on the owner's failure to respond, that a revised assessment report is required, it shall notify the owner in writing of the additional information to be submitted in a revised assessment report.
- (d) The revised assessment report submitted pursuant to (c), above, shall be submitted not more than 30 days from notification by the department.

- (e) The department shall approve the proposed corrective actions and timetable if it determines that the actions that have been taken, are being taken, or are proposed to be taken, as applicable, are likely to address the cause(s) of the trigger in a timeframe that is protective of the health and safety of persons served by the system.
- (f) The department shall notify the owner in writing of whether the corrective actions and timetable have been approved.
- (g) The owner shall notify the department when each corrective action identified in the assessment report is completed, by submitting documentation of completion, including photographs as appropriate, within the timeframe approved by the department pursuant to (e), above.

Source. #10771, eff 2-1-15

# Env-Dw 720.12 Modifications to Approved Assessment Reports.

- (a) The owner shall not make any modifications to the assessment report approved by the department pursuant to Env-Dw 720.11 without first obtaining approval for the modifications from the department in accordance with (b) and (c), below.
- (b) To request approval for modifications to an approved assessment report, the owner shall submit the following in writing;
  - (1) The name of the PWS;
  - (2) The PWS identifier; and
  - (3) An explanation of how the requested modification(s) meets the criteria for approval specified in (c), below.
  - (c) The department shall approve a modification to the approved assessment report if:
    - (1) The modification was made necessary due to circumstances beyond the control of the system owner; and
    - (2) The assessment report as modified will correct all remaining problems and be equally protective of the health and safety of persons served by the system.

Source. #10771, eff 2-1-15

Env-Dw 720.13 <u>Consultation About Corrective Actions</u>. Consultations about corrective actions shall occur as specified in 40 CFR 141.859(d).

Source. #10771, eff 2-1-15

## Env-Dw 720.14 Violations Classified.

- (a) Each of the following shall constitute a treatment technique violation:
  - (1) Failing to comply with Env-Dw 720.06(a) relative to being in compliance with a CAP;
  - (2) Failing to conduct an assessment when and as required by Env-Dw 720.07; and
  - (3) Failing to correct the sanitary defects found during an assessment required by Env-Dw 720.07 within 30 days of the assessment being triggered or within the timeframe established in the assessment report approved by the department pursuant to Env-Dw 720.11(e) or Env-Dw

720.12(c), as applicable.

(b) Failing to submit the completed assessment report as required by Env-Dw 720.10 shall constitute a reporting violation.

Source. #10771, eff 2-1-15

### Env-Dw 720.15 Public Notification.

- (a) The owner of a PWS at which a treatment technique violation as described in Env-Dw 720.14(a) or a reporting violation as described in Env-Dw 720.14(b) occurs shall provide standard public notice as specified in Env-Dw 801.08 for community water systems (CWS) or Env-Dw 801.11 for non-community water systems (NCS), as applicable.
- (b) The owner of a CWS at which a significant deficiency as specified in Env-Dw 720.03 has not been corrected within 12 months of being notified of the deficiency, shall:
  - (1) Notify persons served by the system of the deficiency through the consumer confidence report (CCR) as specified in Env-Dw 811; and
  - (2) Continue to report in the CCR annually until the deficiency has been corrected and confirmation of the correction has been received from the department.
- (c) The owner of an NCS at which a significant deficiency as specified in Env-Dw 720.03 has not been corrected within 12 months of being notified of the deficiency shall include the information specified in (d), below, in each notice provided on or after the 12-month period.
  - (d) The notice required by (b) or (c), above, shall include the following information:
    - (1) The nature of the significant deficiency and the date it was identified by the department; and
    - (2) A description of the approved plan and schedule for correction of the significant deficiency, including interim measures, progress to date, and any interim measures completed.
- (e) The owner of a CWS at which a level I assessment or level II assessment was triggered shall notify persons served by the system of each assessment conducted pursuant to Env-Dw 720.07 and each corrective action taken or planned pursuant to approvals obtained under Env-Dw 720.11(e) or Env-Dw 720.12(c) in the CCR as specified in Env-Dw 811.
- (f) In a community where the population of non-English speaking residents exceeds 20% of the community population, the notice provided pursuant to this section shall contain:
  - (1) Information in the appropriate language(s) regarding the importance of the notice; or
  - (2) A telephone number or address, in the appropriate language, at which customers can contact the system to obtain a translated copy of the notice or assistance in the appropriate language.

Source. #10771, eff 2-1-15; ss by #12420, eff 11-18-17

### Env-Dw 720.16 Required Recordkeeping for Public Water Systems.

- (a) In addition to complying with Env-Dw 718, a PWS owner shall maintain the following records for the time period specified, subject to (c), below:
  - (1) Documentation of corrective actions taken in response to a notice issued under Env-Dw 720.04 shall be retained for 10 years; and

- (2) Documentation of notice to the public as required under Env-Dw 800 shall be retained for 3 years.
- (b) A PWS owner required to conduct an assessment in accordance with Env-Dw 720.07 also shall maintain the following records for not less than 5 years after completion of the assessment:
  - (1) Any assessment report regardless of who conducted the assessment;
  - (2) Documentation of each corrective action completed as a result of the assessment; and
  - (3) Any other summary documentation of the sanitary defects and corrective actions taken.
- (c) A PWS owner who has been notified by the department or any other local, state, or federal agency having enforcement authority that an investigation of the system or enforcement action against the system has been initiated shall retain the documentation specified in (a) and (b), above, as applicable, for the time period specified or 3 years beyond the conclusion of the investigation and enforcement action, whichever is longer.

Source. #10771, eff 2-1-15

#### PART Env-Dw 721 EXEMPTIONS

Env-Dw 721.01 Definitions.

- (a) "Exemption" means an exception from compliance to allow a public water system extra time to comply with a new national primary drinking water regulation, as described in 42 U.S.C. 300g-5.
  - (b) "Unreasonable risk to health" means a situation where:
    - (1) The MCL for  $\underline{E}$ .  $\underline{coli}$ , nitrate, or nitrite would be exceeded;
    - (2) The MCL for any other contaminant would be exceeded by a factor of 5 or more; or
    - (3) If no MCL has been established, the health risk posed by the expected conditions would exceed a reasonable risk as determined using epidemiological studies.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

Env-Dw 721.02 <u>Exemptions</u>. The department shall issue exemptions from the requirements of these drinking water rules as specified in 40 CFR 142 Subparts C and F, as applicable.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

- Env-Dw 721.03 <u>Criteria for Granting an Exemption</u>. The department shall exempt the owner of any public water system from any requirement respecting a maximum contaminant level (MCL) or any treatment technique requirement, or from both, established by an applicable drinking water rule upon determining that:
- (a) The owner of the public water system is unable to comply with such MCL or treatment technique requirement by the established deadline because:
  - (1) The owner of the system will not be able to raise sufficient funds to install and use the required treatment technique or some other treatment method that would be adequate to meet the MCL prior to the deadline, due to factors beyond the owner's control;

- (2) The owner of the system has a long-term improvement plan that will render the need for such treatment technique unnecessary within the pay-back period for the financial investment needed to install and operate such treatment technique in the interim; or
- (3) Other circumstances exist which demonstrate that the benefit to be derived by meeting the MCL or installing the required treatment technique is outweighed by the cost of doing so;
- (b) The public water system was in operation on the effective date of such MCL or treatment technique requirement; and
  - (c) Granting the exemption will not result in an unreasonable risk to health.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

### Env-Dw 721.04 Exemption Request.

- (a) The owner of a public water system who wishes to request an exemption for the system shall submit a request for exemption in writing to the department.
- (b) Owners of water systems who seek similar exemptions under similar circumstances may submit a joint request for exemptions.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

Env-Dw 721.05 <u>Content of Exemption Request</u>. Any request for an exemption shall include the following information:

- (a) The name, location, and PWS identifier of the system for which the exemption is requested;
- (b) The nature and duration of exemption requested;
- (c) Relevant analytical results of water quality sampling of the system, including results of relevant tests conducted pursuant to the requirements of the drinking water rules;
  - (d) An explanation of the basis for the request, as described in Env-Dw 721.03(a);
  - (e) Any other information believed by the applicant to be pertinent to the application; and
- (f) A proposed compliance schedule that specifies the date when each step toward compliance will be achieved.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

### Env-Dw 721.06 Consideration of an Exemption Request.

- (a) The department shall act on any exemption request within 90 days of receipt of a complete request.
- (b) In its consideration of whether the public water system meets the criteria specified in Env-Dw 721.03, the department shall consider such factors as the following:
  - (1) The complexity and cost of construction, installation, or modification of the treatment equipment or systems;

- (2) The time needed to put a new treatment facility into operation or to replace an existing system which is not in compliance; and
- (3) The economic feasibility of compliance.
- (c) The department shall not grant any exemption from the MCL for bacteria specified in Env-Dw 702.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

# Env-Dw 721.07 <u>Disposition of an Exemption Request.</u>

- (a) The department shall notify the applicant in writing of its proposed decision on the application for an exemption.
- (b) If the department determines that the exemption request does not demonstrate that the criteria for granting an exemption have been met, the notice sent pursuant to (a), above, shall:
  - (1) State the reason(s) for the determination;
  - (2) Offer the applicant an opportunity to present additional information or argument to the department within 30 days of receipt of the notice; and
  - (3) Inform the applicant that if additional information or argument is not received, the application shall be deemed denied as of the day following the deadline for submitting the information.
- (c) If the applicant submits additional information or argument, the department shall review the submittal and make a final determination on the request within 30 days after receiving the additional information or argument.
- (d) If the department determines that the exemption request demonstrates that the criteria for granting an exemption have been met, the notice sent pursuant to (a), above, shall identify:
  - (1) The name, location, and PWS identifier of the water system to which the exemption will apply;
  - (2) The proposed exemption;
  - (3) The termination date of the exemption; and
  - (4) That the exemption shall be terminated:
    - a. When the system comes into compliance with the applicable rule; or
    - b. Upon a finding by the department, after notice and opportunity for a hearing, that the system has failed to comply with any requirements of a final schedule issued pursuant to Env-Dw 721.10, as applicable.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

# Env-Dw 721.08 Proposed Schedules for Compliance and Control Measures.

- (a) For an exemption requested under Env-Dw 721.02, the department shall propose a schedule for:
  - (1) Compliance, including increments of progress, or measures to develop an alternative source of water, by the public water system with each contaminant level requirement and treatment technique requirement covered by the exemption; and
  - (2) Implementation by the public water system of such control measures as the department shall require for each contaminant covered by the exemption.
- (b) The proposed schedule for compliance shall specify dates by which steps towards compliance are to be taken, including, at a minimum, the date by which final compliance shall be achieved.
- (c) The final schedule shall be established by the department at the time the exemption is granted, subsequent to the opportunity for a hearing pursuant to Env-Dw 721.09.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

# Env-Dw 721.09 Public Hearings on Exemption Schedules.

- (a) Prior to an exemption schedule proposed by the department pursuant to Env-Dw 721.07 and Env-Dw 721.08 taking effect, the department shall provide notice and opportunity for a public hearing on the exemption schedule.
- (b) If the water system has requested more than one exemption, the notice given pursuant to this section shall include information on each of the exemptions requested.
- (c) Public notice of the opportunity for a hearing on an exemption schedule shall be circulated in a manner designed to inform interested and potentially interested persons of the proposed schedule, including:
  - (1) Posting a public notice in the principal post office of each municipality or area served by the public water system;
  - (2) Publishing a notice in a newspaper of general circulation in the area served by the public water system; and
  - (3) Delivering notices door-to-door or by first-class mail in the area served by the public water system.
  - (d) The public notice shall:
    - (1) Include a summary of the proposed exemption schedule; and
    - (2) Inform interested persons that they may request a public hearing on the proposed exemption schedule.
- (e) Any interested person served by the system who wishes to request a public hearing shall submit the request to the department in writing within 30 days after the issuance of the public notices pursuant to (b), above.
  - (f) A request for public hearing shall include the following:
    - (1) The name, physical address, and daytime telephone number of the individual, organization, or other entity requesting a hearing;

- (2) A brief statement of the interest the person making the request has in the proposed schedule; and
- (3) A brief summary of the information that the requesting person intends to submit at the hearing.
- (g) The request shall be signed by the individual making the request, or, if the request is made on behalf of an organization or other entity, by a responsible official of the organization or other entity.
  - (h) The department shall:
    - (1) Give notice in the manner set forth in (c), above, of any hearing to be held pursuant to a request submitted by an interested person or on the department's own motion; and
    - (2) Send the notice of the hearing to the person requesting the hearing, if any.
  - (i) Notice of the hearing shall:
    - (1) Include a statement of the purpose of the hearing;
    - (2) Specify the time and location of the hearing;
    - (3) Specify the address and telephone number of an office at which interested persons may obtain further information concerning the hearing; and
    - (4) Be given not less than 15 days prior to the date scheduled for the hearing.
- (j) A hearing convened pursuant to this section shall be conducted in accordance with the provisions of Env-C 200 pertaining to non-adjudicative hearings.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

### Env-Dw 721.10 Action After Hearing; Final Schedule.

- (a) Within 30 days after the conclusion of the public hearing or the publication of the notice, if no hearing is held, the department shall, after taking into consideration information obtained during the hearing:
  - (1) Issue the exemption schedule as proposed;
  - (2) Issue a revised exemption schedule for compliance, including interim measures; or
  - (3) Deny the exemption request.
- (b) The final schedule shall require compliance by the owner of the public water system with each contaminant level and treatment technique requirement prescribed as soon as practicable but not later than 36 months after the otherwise applicable compliance date established by the new rule.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

### Env-Dw 721.11 Extension of Date for Compliance.

(a) The final date for compliance provided in any schedule in the case of an exemption shall be extended by the department for a period not to exceed 3 years after the otherwise applicable compliance date established by the new rule if the owner of the public water system establishes that:

- (1) The system cannot meet the standard without capital improvements which cannot be completed within the period of the exemption;
- (2) In the case of a system which needs financial assistance for the necessary improvements, the system has entered into an agreement to obtain such financial assistance but will not be able to complete the necessary improvements within the period of the exemption for reasons beyond the control of the water system; or
- (3) The system has entered into an enforceable agreement to become a part of a regional public water system and the system is taking all practicable steps to meet the standard.
- (b) In the case of a system that does not serve a population of more than 3,300 persons and that needs financial assistance for the necessary improvements, an extension granted under (a)(1) or (2), above, shall be renewed for one or more additional 2-year periods, not to exceed a total of 6 additional years, if the owner of the system establishes that it is taking all practicable steps to come into compliance.
- (c) If the department determines that a treatment method identified in Env-Dw 722 is technically feasible, the department shall require the owner of the system to install and use that treatment method in connection with a compliance schedule. The department's determination shall be based upon studies by the owner of the system and other relevant information.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

# Env-Dw 721.12 Bottled Water and Point-of-Use or Point-of Entry Devices.

- (a) The department shall require a public water system to provide bottled water or point-of-use or point-of-entry devices or other means of response as a condition for granting an exemption from the requirements of Env-Dw 703 through Env-Dw 706.
- (b) The owner of a public water system that uses bottled water as a condition of obtaining an exemption shall ensure the bottled water source meets the requirements specified in Env-Dw 303.
- (c) The owner of a public water system that uses point-of-use or point-of-entry devices as a condition for receiving an exemption shall meet the requirements specified in Env-Dw 723.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14

# PART Env-Dw 722 BEST AVAILABLE TECHNOLOGY AND TREATMENT TECHNIQUES

### Env-Dw 722.01 Best Available Technology (BAT) for Microbiological.

- (a) The best available technology (BAT), treatment techniques, or other means available for achieving compliance with the total coliform rules as specified in Env-Dw 702 shall be as specified in 40 CFR 141.63(e) and (f).
- (b) The granting of an exemption from the requirements of Env-Dw 716 concerning surface water filtration and disinfection shall be as specified in 40 CFR 141.170(d) as incorporated by reference at Env-Dw 716.08(a) and 40 CFR 141.500(b) as incorporated by reference at Env-Dw 716.08(b).

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12820, eff 6-28-19

Env-Dw 722.02 <u>BAT for Radionuclides</u>. Best available technology for achieving compliance with the MCLs for radionuclides as specified in Env-Dw 703.01(a) and Env-Dw 703.03 shall be as specified in 40 CFR 141.66(g) and (h).

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12820, eff 6-28-19

Env-Dw 722.03 <u>BAT for Inorganics</u>. The best available technology, treatment technique, or other means available for achieving compliance with the MCLs for inorganics specified in Env-Dw 704.02 shall be as specified in 40 CFR 141.62(c) and (d).

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12820, eff 6-28-19

Env-Dw 722.04 <u>BAT for Organic Chemicals</u>. The technologies listed in 40 CFR 141.61(b) shall be the best available technology, treatment techniques, or other means available for achieving compliance with the MCL level for organic chemicals specified in Env-Dw 705.01(b) and Env-Dw 705.02(b).

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12820, eff 6-28-19

Env- Dw 722.05 <u>BAT for Disinfection Byproducts</u>. The technology listed in 40 CFR 141.64 shall be the best available technology, treatment technique, or other means available for achieving compliance with the MCL for disinfection byproducts as specified in Env-Dw 705.03(c).

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12820, eff 6-28-19

Env-Dw 722.06 <u>BAT for Residual Disinfectants</u>. The technology listed in 40 CFR 141.65(c) shall be the best available technology, treatment technique, or other means available for achieving compliance with the MRDL for disinfectant residuals as specified in Env-Dw 705.04(c).

Source. #12820, eff 6-28-19

Env-Dw 722.07 Treatment Technique for Acrylamide and Epichlorohydrin.

- (a) The purpose of this section is to establish treatment techniques in lieu of MCLs for acrylamide and epichlorohydrin.
- (b) Each public water system shall certify annually in writing to the department that when acrylamide or epichlorohydrin are used in drinking water systems, the combination of dose and monomer level does not exceed the following specified level:
  - (1) For acrylamide, 0.05% dosed at 1 ppm; and
  - (2) For epichlorohydrin, 0.01% dosed at 20 ppm.

Source. (See Revision Note #5 at chapter heading for Env-Dw 700) #10617, eff 6-1-14; ss by #12820, eff 6-28-19 (formerly Env-Dw 722.06)

### PART Env-Dw 723 NON-CENTRAL TREATMENT

### Env-Dw 723.01 <u>Use of Non-Central Treatment</u>.

- (a) Subject to (b), below, point-of-entry (POE) or point-of-use (POU) treatment shall be used by a public water system (PWS or system) only where:
  - (1) Alternate water sources are not feasible;
  - (2) Centralized treatment is not feasible; and
  - (3) The conditions specified in Env-Dw 723.06 are met.
  - (b) POU treatment shall be allowed only if POE treatment is not feasible.
- (c) The practice of re-chlorinating water or otherwise enhancing a centralized treatment in a distribution system prior to the water being further distributed to multiple service connections shall not be considered non-central treatment that is subject to this part.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

Env-Dw 723.02 <u>Request to Approve Non-Central Treatment</u>. To request approval to install and use POE or POU treatment, the system owner shall submit the following in writing to the department:

- (a) The name, location, and PWS identifier of the system;
- (b) The contaminant(s) proposed to be treated by the POE or POU devices;
- (c) An explanation, with supporting documentation, of the system's attempts to locate alternate sources;
  - (d) An explanation, with supporting documentation, of why centralized treatment is not feasible;
  - (e) The results of pilot testing for POE devices conducted pursuant to 40 CFR 141.100, if applicable;
  - (f) An operations and maintenance plan which explains how:
    - (1) All units will be operated, scheduled for media or cartridge replacement, and monitored for total flow treated; and
    - (2) Records will be maintained to ensure all units are operated correctly to ensure the contaminant is treated as proposed; and
  - (g) A contract with a certified operator that:
    - (1) Specifies the operator's obligations to maintain and sample all installed POE or POU treatment devices:
    - (2) Is for an initial term of not less than one year; and
    - (3) Is subject to renewal not more frequently than once each year.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

Env-Dw 723.03 <u>Department Action on Request to Approve Non-Central Treatment</u>. The department shall approve a request to install and use POE or POU treatment if it determines that:

- (a) A non-contaminated source is not available to the water system;
- (b) Centralized treatment is not feasible;
- (c) The water from the POE or POU treatment devices will:
  - (1) Meet all applicable MCLs; and
  - (2) Be of acceptable quality similar to water distributed by a properly-operated central treatment plant.
- (d) The results of pilot testing, if required, indicate that each treatment option proposed would be effective in reducing the contaminant concentration to below the applicable MCL; and
- (e) All current owners or renters of property served by the PWS agree to the implementation of the proposed POU or POE treatment, including the installation, operation, testing, and maintenance of the devices and the legal constraints on the property imposed by the installation of the devices by the system owner, as described in Env-Dw 723.07.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

### Env-Dw 723.04 Prerequisites to Implementing Approved Non-Central Treatment.

- (a) Prior to installing any POE or POU treatment devices, the system owner shall:
  - (1) Develop and obtain approval for a monitoring plan as specified in (b) and (c), below; and
  - (2) Submit a design layout for the POE or POU treatment devices as specified in (d), below.
- (b) The system owner shall develop the monitoring plan required by (a)(1), in consultation with the department, to:
  - (1) Be consistent with Env-Dw 707 through Env-Dw 713; and
  - (2) Include provisions for physical measurements, observations such as total flow treated, the mechanical condition of the treatment equipment, the microbiological purity of the water, and scheduled maintenance.
- (c) The department shall approve the monitoring plan developed pursuant to (b), above, if the plan is adequate to ensure that the non-central treatment devices will provide health protection equivalent to central water treatment.
  - (d) The design layout required by (a)(2), above, shall:
    - (1) Ensure that all consumers will be equally protected;
    - (2) Provide a POE or POU treatment device for each building connected to the system; and

(3) Include certification from the manufacturer that the POE or POU treatment devices meet the applicable American National Standards Institute (ANSI) even when considering the tendency for an increase in heterotrophic bacteria concentrations in water treated with activated carbon.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

# Env-Dw 723.05 Non-Central Treatment Implementation Requirements.

- (a) The requirements of this section shall apply after a system owner receives approval for the installation and use of POE or POU treatment devices pursuant to Env-Dw 723.02 and Env-Dw 723.03 and complies with Env-Dw 723.04.
  - (b) With respect to the contract required by Env-Dw 723.02(g), the system owner shall:
    - (1) Not allow the contract to lapse for greater than 15 days; and
    - (2) Make the contract available for review by department staff upon request.
  - (c) With respect to the POE or POU treatment devices installed, the system owner shall:
    - (1) Operate and maintain each POE or POU treatment unit, including those installed in private homes or businesses, as specified in the monitoring plan approved under Env-Dw 723.04, by maintaining a contract with a certified operator for specific implementation of operation and maintenance;
    - (2) Not delegate operation and maintenance responsibilities to home or business owners;
    - (3) Submit data documenting that every building is subject to treatment and monitoring; and
    - (4) Not separate the POE or POU treatment unit from the supply by sale, lease, or other conveyance of the property.
  - (i) Monitoring shall be in accordance with Env-Dw 723.09.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

# Env-Dw 723.06 Conditions for POE and POU Treatment.

- (a) POE or POU treatment shall not be approved for:
  - (1) Volatile contaminants;
  - (2) Contaminants that cause staining or pipe deposits such as iron, manganese, and hardness; or
  - (3) Acute contaminants such as bacteria, nitrate, or nitrite.
- (b) POE or POU treatment shall be an alternate to centralized treatment to achieve compliance with the MCL requirements specified in Env-Dw 701 through Env-Dw 705.
  - (c) POE or POU treatment shall not be approved for use at new community water systems.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

# Env-Dw 723.07 POE and POU User Agreement.

- (a) The system owner shall provide all current owners or renters of property served by the PWS with educational information regarding:
  - (1) How the POE or POU treatment device works;
  - (2) How the treatment device(s) will be operated, sampled, and maintained; and
  - (3) The health effects associated with the contaminant being treated.
  - (b) The system owner proposing to use POE or POU treatment shall provide to the department:
    - (1) Written verification of the acceptance of non-central treatment by all current owners and renters; and
    - (2) Written verification of the willingness of the customers of each property to be served by POE or POU treatment to grant an easement or other covenant or legally binding contract for the property that requires any future owner of that service connection or property to abide by the POE or POU treatment.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

### Env-Dw 723.08 POE and POU Equipment Requirements.

- (a) The POE or POU treatment device shall be owned or leased by the system owner.
- (b) The POE or POU treatment device shall be installed and maintained by the system owner, provided however that the system owner may contract maintenance and the repair of the devices to other water industry professionals including certified water operators.
- (c) All devices shall have a mechanical warning indicator showing the treatment capacity remaining. Within 7 days after the mechanical warning device indicates that the treatment capacity has been met, the system owner shall maintain and test the unit according to manufacturer specifications.
- (d) The POE or POU treatment device shall be certified under the applicable American National Standards Institute (ANSI) standards for the intended treatment objective(s).
- (e) Subject to (f), below, all POE or POU treatment devices shall be of the same treatment method and brand name at the time of the initial installation.
  - (f) A system owner may request the department to waive the requirement in (e), above, based on:
    - (1) The needs of variable-sized customers connected to the water system;
    - (2) Unique purity needs of certain customers;
    - (3) The system's evaluation of the benefits of different devices; or
    - (4) Any other factors that support the request.
  - (g) The request shall be submitted as a waiver request in accordance with Env-Dw 202.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

# Env-Dw 723.09 POE and POU Monitoring Requirements.

- (a) Unless otherwise specified in the treatment approval, the system owner shall collect a sample of treated water and have the sample tested for the contaminant(s) from each POE or POU device:
  - (1) Within 6 months of initial installation; and
  - (2) Annually thereafter as specified in the system's sampling schedule provided by the department in accordance with Env-Dw 708.
- (b) If any result from any POE or POU device exceeds the MCL for the contaminant being treated, the system owner shall submit flow and maintenance records and results from all devices installed at that PWS to the department to collaboratively determine the frequency of subsequent monitoring of that unit.
- (c) Compliance shall be determined for each unit based on the running annual average of results from samples collected at each POE or POU device.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

### Env-Dw 723.10 Violation of MCL when using POE or POU.

- (a) For purposes of this section, an MCL violation for a particular contaminant occurs when the running annual average is greater than the MCL at any POE or POU device, whether one or more samples are collected
  - (b) If an MCL violation occurs, upon receiving notice of the violation the system owner shall:
    - (1) Within 3 days, provide the standard MCL violation notice in accordance with Env-Dw 800 to the customer(s) having the exceedance and submit proof of public notice to the department within 10 days of distribution;
    - (2) Make repairs to the device within 7 days; and
    - (3) Test the repaired device within 7 days of repair to determine whether the MCL is being met.
- (c) If the violation occurs at a community water system, the system owner shall include information about the violation in the consumer confidence report (CCR) required by Env-Dw 811.
- (d) If the violation occurs at a non-community water system, the system owner shall post public notice as follows:
  - (1) At the location of the POU treatment device where the MCL was exceeded, for a minimum of 7 days, if the violation arises at a POU; or
  - (2) If the violation arises at a POE treatment device, on a main bulletin board or other conspicuous place in the facility served by the POE treatment device.
- (e) If violations of POE or POU devices occur on a yearly basis, the department shall determine the adequacy of the devices and the operations and maintenance plan established pursuant to Env-Dw 723.01(f) by evaluating the history of monitoring data and reviewing flow, operation and maintenance records for all devices installed at the PWS.
- (f) If the department determines that a previously-approved non-central treatment concept is compromising the quality of water delivered to consumers, the department shall evaluate the need to initiate

an action to suspend or revoke the approval in accordance with RSA 541-A and the provisions of Env-C 200 applicable to adjudicative proceedings.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

### Env-Dw 723.11 POE and POU Ongoing User Education.

- (a) Where POE or POU treatment is used, the system owner shall annually provide written educational materials to water users concerning the importance of using POE or POU treated water for drinking water consumption and food preparation.
- (b) For community water systems, the system owner may include the educational materials required by (a), above, in the CCR required by Env-Dw 811.
- (c) All new residents shall be given this educational notice within 15 days of the beginning of water service.
  - (d) The educational materials shall be worded as follows:

"Periodic Educational Notice

The <u>(name of system)</u> public water system has chosen to use (insert point-of-entry, point-of-use, or both, as applicable) treatment to reduce the concentration of <u>(name of contaminant)</u> in the water system serving <u>(name of users)</u>.

# (Insert applicable paragraph)

In point-of-entry (POE) treatment, a treatment device is installed to treat all of the water entering one particular building or service connection.

In point-of-use (POU) treatment, a small treatment device is installed on only one faucet in each unit served by the water system, rather than using a large central treatment process at the source of water. The POU treatment device typically is placed on the kitchen faucet. This type of treatment is an acceptable alternative to centralized treatment because there is no health concern relative to using untreated water for dish washing, personal hygiene, and other non-consumptive uses from other faucets in your home. The water at all other faucets in your home/office/building exceeds the maximum contaminant level (MCL) for (contaminant) and should not be used for consumption or used in any food preparation

The results for treated water within our public water system range from (<u>lowest concentration</u>) parts per million (ppm) to (<u>highest concentration</u>) ppm. (<u>Number of violations</u>) violations was/were documented in calendar year (<u>year</u>). For further information, please call (<u>name of water system contact</u>) at (<u>telephone number</u>)."

The following paragraph explains the potential adverse health effects for (contaminant). (Insert applicable health effects language found in Env-Dw 800)."

(d) Where POE or POU treatment devices are installed to treat fluoride in a community water system or a non-transient, non-community water system that serves children under the age of 9, the system owner shall distribute annual public notification for fluoride to the location where the exceedance occurred in accordance with Env-Dw 803.01 if any result is greater than the secondary MCL.

(e) Where POE or POU treatment devices are installed in a non-transient, non-community water system, all sinks where users may access water for drinking water or washing shall be posted to identify whether the water is potable or non-potable.

Source. (See Revision Note #6 at chapter heading for Env-Dw 700) #10618, eff 6-1-14

Appendix A - Statutes/Regulations Implemented

Rule Section(s)	State Statute(s) Implemented	Federal Regulation(s) Implemented
Env-Dw 701	RSA 485:1, I	40 CFR 141 Subpart A
(see also specific sections/	,	
paragraphs below)		
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(d)	RSA 485:41, IV	
Env-Dw 701.01(e)	RSA 485:3, I	40 CFR 141 Subpart H, I, L
Env-Dw 701.01(f)	RSA 485:3, I	40 CFR 141 Subpart S
Env-Dw 701.01(g)	RSA 485:1, II(a)	40 CFR 141 Subpart D
Env-Dw 701.01(h)-(i)	RSA 485:41, IV	
Env-Dw 701.01(j)	RSA 485:3, VIII	40 CFR 142 Subpart G
Env-Dw 701.01(k)	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 701.03(d)-(f)	RSA 485:3, I; RSA 485:16-e	
Env-Dw 701.04 - 701.05	RSA 485:3, I, III, V, & VI	40 CFR 141.2
	RSA 485:41, II & IV	
E D 702 (-1	DCA 405.2 I	40 CED 141 52: 40 CED 141 C2
Env-Dw 702 (also see	RSA 485:3, I	40 CFR 141.52; 40 CFR 141.63
specific section below) Env-Dw 702.02 – 702.03	RSA 485:3, I	40 CFR 141.52; 40 CFR 141.63;
Eliv-Dw /02.02 = /02.03	KSA 463.3, 1	40 CFR 141.32, 40 CFR 141.03, 40 CFR 141.860
Env-Dw 702.04	RSA 485:3, I	40 CFR 141.500 40 CFR 141.52; 40 CFR 141.63
LIIV-DW 702.04	K5A 405.5, 1	40 CFR 141.32, 40 CFR 141.03
Env-Dw 703	RSA 485:3, I	40 CFR 141.55; 40 CFR 141.66
Env Bw 703	105.1 105.5, 1	10 CI K 1 11.33, 10 CI K 1 11.00
Env-Dw 704	RSA 485:3, I	40 CFR 141.51; 40 CFR 141.62
Env-Dw 704.02	RSA 485:3, I; Laws of 2019, 208:1, II	40 CFR 141.51; 40 CFR 141.62
Env-Dw 705 (also see	RSA 485:3, I	40 CFR 141.50; 40 CFR 141.53;
specific section below)	K5A 405.5, 1	40 CFR 141.50, 40 CFR 141.53, 40 CFR 141.54; 40 CFR 141.61;
specific section below)		40 CFR 141.64; 40 CFR 141.65
Env-Dw 705.05	RSA 485:3, IV	40 CFR 141.111
Env-Dw 705.06	RSA 485:3, I; RSA 485:16-e	10 922111111
Env-Dw 706	RSA 485:3, I(a), I(b)(1), II;	Env-Dw 706
Env-Dw 707 (also see	RSA 485:3, I	40 CFR 141, 142, & 143
additional details below)	NSA 703.3, I	TO CIR 141, 142, & 143
Env-Dw 707.02(a)	RSA 485:3, I(c)	40 CFR 141 Subpart C
Env-Dw 707.02(a) Env-Dw 707.02(b)	RSA 485:3, I(c); 485:35	40 CFR 141.101
Env-Dw 707.02(c)	RSA 485:3, I	40 CFR 141.101 40 CFR 141 Subparts C & Y
Env-Dw 707.02(c) Env-Dw 707.03	RSA 485:3, I	40 CFR 141 Subparts C & 1 40 CFR 141.29
Env-Dw 707.06(a), (d) intro		40 CFR 141.29 40 CFR 141, 142, & 143;
Liiv-Dw /0/.00(a), (a) Intro	NOA 403.3, I	TO CITE 141, 142, & 143,

& (1)		40 CFR 141.852(a) & (c)
	DCA 405.2 L DCA 405.16 -	
Env-Dw 707.06(d)-(e)	RSA 485:3, I; RSA 485:16-e	Env-Dw 707.06(d)-(e)
Env-Dw 707.07	RSA 485:3, I	40 CFR 141.28; 40 CFR 141.852(b)
Env-Dw 708.01(e)	RSA 485:3, I; RSA 485:16-e	
Env-Dw 708.02	RSA 485:3, I	40 CFR 141.24 (f);
		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); 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); 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
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Env-Dw 709.01 – 709.05	RSA 485:3, I	40 CFR 141.21; 40 CFR 141.853 – 141.861
Env-Dw 709.06,	RSA 485:1, II(e); RSA 485:3, I	40 CFR 141.2
		40 CFR 141.855(d);
		40 CFR 142.16 (q)(2)(ii)
Env-Dw 709.07	RSA 485:1, II(e); RSA 485:3, I	40 CFR 141.2
		40 CFR 141.855(d);
		40 CFR 142.16 (q)(2)(ii)
Env-Dw 709.08	RSA 485:3, I	40 CFR 141.21; 40 CFR 141.853 – 141.861
Env-Dw 709.09	RSA 485:1, II(e); RSA 485:3,I	40 CFR 141.2
		40 CFR 141.855(d);
		40 CFR 142.16 (q)(2)(ii)
Env-Dw 709.10 – 709.25	RSA 485:3, I	40 CFR 141.21; 40 CFR 141.853 – 141.861
Env-Dw 710.01	RSA 485:3, I	40 CFR 141.26
Env-Dw 710.02	RSA 485:3, I	40 CFR 141.66
Env-Dw 710.03 - 710.11	RSA 485:3, I; RSA 485:41, I & IV	40 CFR 141.26
Env-Dw 710.12	RSA 485:41, IV	40 CFR 141 Subpart C, Appendix A;
Env Ew / 10.12	11811 102.11, 11	40 CFR 142 & 143
Env-Dw 711.01 - 711.07	RSA 485:3, I(c)	40 CFR 141.23(a); 40 CFR 142 & 143
Env-Dw 711.08	RSA 485:41, IV	40 CFR 141.31
Env-Dw 711.09 - 711.15	RSA 485:3, I(c)	40 CFR 141.23(b)
Env-Dw 711.16	RSA 485:41, IV	40 CFR 141
Env-Dw 711.17	RSA 485:3, I	40 CFR 141.23(b)
Env-Dw 711.18 - 711.22	RSA 485:3, I	40 CFR 141.23; 40 CFR 142 & 143
Env-Dw 711.23	RSA 485:41, IV	40 CFR 141.31
Env-Dw 711.24 - 711.28	RSA 483:3, I	40 CFR 141.23
Env-Dw 711.29	RSA 485:41, IV	40 CFR 141.31
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Env-Dw 712.01 - 712.03	RSA 485:3, I	40 CFR 141.40
Env-Dw 712.04	RSA 485:3; RSA 485:41	40 CFR 141.24

E B 512.05	DG 4 405 2 4	
Env-Dw 712.05	RSA 485:3, I	
Env-Dw 712.06	RSA 485:3, I	40 CFR 141.24 (f)
Env-Dw 712.07 - 712.08	RSA 485:3, I	40 CFR 14.23 (k)
Env-Dw 712.09	RSA 485:41, IV	40 CFR 141.23
Env-Dw 712.10 - 712.11	RSA 485:3, I	40 CFR 141.24 (f)
Env-Dw 712.12 - 712.14	RSA 485:3, I	
Env-Dw 712.15	RSA 485:41, IV	40 CFR 141.31
Env-Dw 712.16 - 712.17	RSA 485:3, I	
Env-Dw 712.18	RSA 485:3, I(c)	40 CFR 141.132
Env-Dw 712.19	RSA 485:3, I	40 CFR 141.30
Env-Dw 712.20 - 712.22	RSA 485:3, I	40 CFR 141.24(e)(6); 40 CFR 141.30
Env-Dw 712.23 - 712.30	RSA 485:3, I; RSA 485:16-e	
Env-Dw 713.01 - 713.05	RSA 485:3, II	40 CFR 143.4
Env-Dw 713.06	RSA 485:3, I(c)	
Env-Dw 713.07	RSA 485:41, IV	40 CFR 141.31
Env-Dw 713.08	RSA 485:3, II	TO CITCING I
Env Bw / 13.00	11011 10010, 11	
Env-Dw 714.01	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.1; 40 CFR §141.80(a)-(b)
Env-Dw 714.02	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.2
Env-Dw 714.03	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.80(c)
Env-Dw 714.04	RSA 485:1; RSA 485:3, I & VII	40 CFR §\$141.81 - 141.83; §\$141.86 - 141.88
Env-Dw 714.05	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.84
Env-Dw 714.06	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.85
Env-Dw 714.07	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.90
Env-Dw 714.08	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.86
Env-Dw 714.09	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.87
Env-Dw 714.10	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.88
Env-Dw 714.11	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.89
Env-Dw 714.12	RSA 485:1; RSA 485:3, I & VII	40 CFR §141.91
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Env-Dw 715	RSA 485:3, I(c)	40 CFR 141 Subpart L (§§130-135);
	RSA 485:41, II & IV	40 CFR 141 Subpart U (§§600-605);
E D 716		40 CFR 141 Subpart V (§§620-629)
Env-Dw 716	RSA 485:3, I & VI	40 CFR 141 Subpart H (§§70-76)
	RSA 485:41, II & IV	40 CFR 141 Subpart P (§§171-175)
		40 CFR 141 Subpart T (§§500-571)
		40 CFR 141 Subpart W (§§700-723)
Env-Dw 717.01	RSA 485:3, I	40 CFR 141.400(a)
Env-Dw 717.02	RSA 485:3, I	40 CFR 141.400(b)
Env-Dw 717.03	RSA 485:3, I	40 CFR 141.2, 141.400(b) & 142.16
Env-Dw 717.04	RSA 485:3, I & VI	40 CFR 141.400(d)
Env-Dw 717.05	RSA 485:3, I	40 CFR 141.402(e)
Env-Dw 717.06	RSA 485:3, I	40 CFR 141.402
Env-Dw 717.07	RSA 485:3, I & VI	40 CFR 141.402(f) & 141.403(b)
Env-Dw 717.08	RSA 485:3, I & VI	40 CFR 141.400(b)
Env-Dw 717.09	RSA 485:3, I & VI	40 CFR 141.400(a); 40 CFR 141.403(b)(1)
Env-Dw 717.10	RSA 485:3, I & VI	40 CFR 141.403(c)
Env-Dw 717.11	RSA 485:3, I & VI	40 CFR 141.400(a)
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Env-Dw 717.12	RSA 485:3, I & VI	40 CED 141 402(a)
	,	40 CFR 141.402(a)
Env-Dw 717.13	RSA 485:3, I & VI	40 CFR 141.402(a); 40 CFR 141.403(b)(1)
Env-Dw 717.14	RSA 485:3, I & VI	40 CFR 141.400(b)
Env-Dw 717.15 - 717.17	RSA 485:3, I & VI	40 CFR 141.402(b)
Env-Dw 717.18	RSA 485:3, I & VI	40 CFR 141.405(a)
Env-Dw 717.19	RSA 485:3, I & VI	40 CFR 141.405(b)
Env-Dw 717.20	RSA 485:3, I & VI	40 CFR 141.403 & 141.405(a)
Env-Dw 717.20 intro,	RSA 485:1; RSA 485:3, I & VI	40 CFR 141.403; 40 CFR 141.405(a)
(n), (s)		
Env-Dw 717.21	RSA 485:3, I & VI	40 CFR 141.202; 40 CFR 141.203;
		40 CFR 141.402(h); 40 CFR 141.404
Env-Dw 717.22	RSA 485:3, I & VI	40 CFR 141.402(g) & 141.403(a)
Env-Dw 717.23	RSA 485:3, I & VI	40 CFR 141.400(a)
Env-Dw 717.24	RSA 485:3, I & VI	40 CFR 141.400(b)
Env-Dw 717.25	RSA 485:3, I & VI	40 CFR 141.400(a)
Env-Dw 718	RSA 485:41, IV	40 CFR 141 Subpart D
Env-Dw 719	RSA 485:41, IV	40 CFR 141.31
Env-Dw 720	RSA 485:1, 3, 4, 41, 43, 45, 58	40 CFR 141; 40 CFR 142
(also see specific sections		
below)		
Env-Dw 720.01 - 720.03	RSA 485:1, II(a), (d), (e), & (h)	40 CFR 141.21(d); 40 CFR 141.401;
	RSA 485:3, I(c);	40 CFR 142.10(b)(2)
	RSA 485:4, I & III	
	RSA 485:41, V	
	RSA 485:45	
Env-Dw 720.04	RSA 485:1, II(e); RSA 485:4	NA
Env-Dw 720. 05 - 720.06	RSA 485:1, I; RSA 485:3, I(c);	40 CFR 141.21(d); 40 CFR 141 Subpart D
	RSA 485:58, I	(§§31-35) 40 CFR 141 Subpart S (§§400-405)
Env-Dw 720.07 - 720.13	RSA 485:1, I; RSA 485:3, I(c)	40 CFR 141.859
Env-Dw 720.14	RSA 485:1, I; RSA 485:3, I(c)	40 CFR 141.860
Env-Dw 720.15	RSA 485:43	40 CFR 141 Subpart Q
Env-Dw 720.16	RSA 485:1, I; RSA 485:41, IV	40 CFR 141.33; 40 CFR 141 Subpart S
Env-Dw 721	RSA 485:3, I & III; RSA 485:42	40 CFR 142 Subparts C and F
Env-Dw 722	RSA 485:3, I, V, & VI;	40 CFR 141 Subpart K; 40 CFR 142 Subpart G
	RSA 485:41, II	
E D 703	DC4 405 2 1 11 0 17	40 OFD 141 O. 1. 41 42 OFD 142 O. 1. 42
Env-Dw 723	RSA 485:3, I, V, & VI;	40 CFR 141 Subpart J; 40 CFR 142 Subpart F
	RSA 485:41, II	

#### **APPENDIX B - FEDERAL DEFINITIONS**

### 40 CFR §141.2

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.

*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.

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).

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.

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.

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.

*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.

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.

### 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."

### **APPENDIX B: FEDERAL DEFINITIONS FOR ENV-DW 716**

# 40 CFR §141.2

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

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

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.

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

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

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."

#### **APPENDIX C: DEFINITION OF PESTICIDE**

Pes 101.21 "Pesticide" means:

(a) materials:	Any chemical or biological agent used to control a pest including but not limited to the following
	(1) Acaricides or miticides;
	(2) Insecticides;
	(3) Nematocides;
	(4) Herbicides;
	(5) Desiccants;
	(6) Defoliants;

(8) Molluscides;

(7) Fungicides;

- (9) Repellents;
- (10) Algaecides;
- (11) Rodenticides;
- (12) Disinfectants; and
- (13) Fumigants; and
- (b) Any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any insects, rodents, fungi, weeds or other forms of plant or animal life or viruses which the board declares to be a pest, except viruses on or in living man or other animals, and any substances or mixture of substances intended for use as a plant regulator, defoliant or desiccant.

# APPENDIX D: MONITORING FREQUENCY FOR PFAS CONTAMINANTS BASED ON SPECIFIED MCL

Perfluorohexane sulfonic acid (PFHxS); MCL = 18 ng/L

Average Monitoring Result (ng/L)	Frequency
> 9 to 18	Annually
≤9	Every 3 years

Perfluorononanoic acid (PFNA); MCL = 11 ng/L

Average Monitoring Result (ng/L)	Frequency
> 5.5 to 11	Annually
≤ 5.5	Every 3 years

Perfluorooctane sulfonic acid (PFOS); MCL = 15 ng/L

Average Monitoring Result (ng/L)	Frequency
> 7.5 to 15	Annually
≤ 7.5	Every 3 years

Perfluorooctanoic acid (PFOA); MCL = 12 ng/L

Average Monitoring Result (ng/L)	Frequency
> 6 to 12	Annually
≤ 6	Every 3 years