

## Annex A

### **TITLE 25. ENVIRONMENTAL PROTECTION**

#### **PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION**

##### **Subpart C. PROTECTION OF NATURAL RESOURCES**

###### **ARTICLE II. WATER RESOURCES**

###### **CHAPTER 109. SAFE DRINKING WATER**

###### **Subchapter A. GENERAL PROVISIONS**

###### **§ 109.1. Definitions.**

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

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

*Level 1 assessment*—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.

*Level 2 assessment*—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. This 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.

*Liquid from dewatering processes*—A stream containing liquids generated from a unit used to concentrate solids for disposal.

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*SUVA*—*Specific ultraviolet absorption at 254 nanometers (nm)*—An indicator of the humic content of water. [it] It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of 254 nm ( $UV_{254}$ ) (in  $m^{-1}$ ) by its concentration of dissolved organic carbon (DOC) (in mg/L).

***Sanitary defect***—A defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place.

***Sanitary survey***—An onsite review and evaluation of a public water system's source, facilities and equipment and the operation and maintenance procedures used by a public water supplier for producing and distributing safe drinking water.

***Seasonal system***—A noncommunity water system that is not operated as a public water system on a year-round basis and starts up and shuts down at the beginning and end of each operating season.

***Sedimentation***—A process for the removal of solids before filtration by gravity or separation.

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## **Subchapter B. MCLs, MRDLs OR TREATMENT TECHNIQUE REQUIREMENTS**

### **§ 109.202. State MCLs, MRDLs and treatment technique requirements.**

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(c) *Treatment technique requirements for pathogenic bacteria, viruses and protozoan cysts.* A public water system shall provide adequate treatment to reliably protect users from the adverse health effects of microbiological contaminants, including pathogenic bacteria, viruses and protozoan cysts. The number and type of treatment barriers and the efficacy of treatment provided shall be commensurate with the type, degree and likelihood of contamination in the source water.

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(3) A community public water system shall provide continuous disinfection and comply with Subchapter M (relating to additional requirements for groundwater sources) for groundwater sources.

(4) **Public water systems shall conduct assessments in accordance with § 109.705(b) (relating to system evaluations and assessments) after meeting any of the triggers under subparagraph (i) or (ii). Failure to conduct an assessment or complete a corrective action in accordance with § 109.705(b) is a treatment technique violation requiring 1-hour reporting in accordance with § 109.701(a)(3) and public notification in accordance with § 109.409 (relating to Tier 2 public notice—categories, timing and delivery of notice).**

(i) **A Level 1 assessment is triggered if any of the following conditions occur:**

- (A) For systems taking 40 samples or more per month under § 109.301(3), the system exceeds 5.0% total coliform-positive samples for the month.
  - (B) For systems taking fewer than 40 samples per month under § 109.301(3), the system has 2 or more total coliform-positive samples in the same month.
  - (C) The system fails to take every required check sample under § 109.301(3) after any single total coliform-positive sample.
- (ii) A Level 2 assessment is triggered if any of the following conditions occur:
- (A) A system fails to meet the *E. coli* MCL as specified under subsection (a)(2).
  - (B) A system triggers another Level 1 assessment, as defined in subparagraph (i), within a rolling 12-month period, unless the Department has determined a likely reason that the samples that caused the first Level 1 assessment were total coliform-positive and has established that the system has corrected the problem.
- ~~[(iii) The Department may direct a system to conduct a Level 1 or Level 2 assessment if circumstances exist which may adversely affect drinking water quality including, but not limited to, the situations specified in § 109.701(a)(3)(iii).]~~
- (5) Failure by a seasonal water system to complete the approved start-up procedure prior to serving water to the public as required under § 109.715 (relating to seasonal systems) is a treatment technique violation requiring 1-hour reporting in accordance with § 109.701(a)(3) and public notification in accordance with § 109.409.

(d) *Fluoride*. A public water system shall comply with the primary MCL for fluoride of 2 mg/L, except that a noncommunity water system implementing a fluoridation program approved by the Department of Health and using fluoridation facilities approved by the Department under § 109.505 (relating to requirements for noncommunity water systems) may exceed the MCL for fluoride but may not exceed the fluoride level approved by the Department of Health. The secondary MCL for fluoride of 2 mg/L established by the EPA under 40 CFR 143.3 (relating to secondary MCLs) is not incorporated into this chapter.

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## Subchapter C. MONITORING REQUIREMENTS

### § 109.301. General monitoring requirements.

Public water suppliers shall monitor for compliance with MCLs, MRDLs and treatment technique requirements in accordance with the requirements established by the EPA under the National Primary Drinking Water Regulations, 40 CFR Part 141 (relating to [national] National primary drinking water regulations), except as otherwise established by this chapter unless increased monitoring is required by the Department under § 109.302 (relating to special

monitoring requirements). Alternative monitoring requirements may be established by the Department and may be implemented in lieu of monitoring requirements for a particular National Primary Drinking Water Regulation if the alternative monitoring requirements are in conformance with the Federal act and regulations. The monitoring requirements shall be applied as follows:

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(3) *Monitoring requirements for coliforms.* Public water systems shall determine the presence or absence of total coliforms for each routine or check sample; and, the presence or absence of [fecal coliforms or] *E. coli* for a total coliform positive sample in accordance with analytical techniques approved by the Department under § 109.304 (relating to analytical requirements). A system may forego [fecal coliform or] *E. coli* testing on a total coliform-positive sample if the system assumes that any total coliform-positive sample is also [fecal coliform-] *E. coli*-positive. A system which chooses to forego [fecal coliform or] *E. coli* testing shall, under § 109.701(a)(3), notify the Department within 1 hour after the water system learns of the violation or the situation, and shall provide public notice in accordance with § 109.408 (relating to Tier 1 public notice—categories, timing and delivery of notice) **IF A VIOLATION OF THE E. COLI MCL OCCURS UNDER PARAGRAPH (iv).**

(i) *Frequency.* Public water systems shall collect **monthly** samples at regular time intervals throughout the monitoring period as specified in the system distribution sample siting plan under § 109.303(a)(2) (relating to sampling requirements). Systems which use groundwater and serve 4,900 persons or fewer[,] may collect all required samples on a single day if they are from different sampling sites in the distribution system.

(A) **[Except as provided under § 109.705(b) (relating to sanitary surveys), the]** The number of monthly total coliform samples that [community water systems] a public water system shall take is based on the population served by the system as follows:

Population Served	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
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
1,850,001 to 2,270,000	390
2,270,001 to 3,020,000	420
3,020,001 to 3,960,000	450
3,960,001 or more	480

**[(B) Except as provided under § 109.705(c), the number of periodic total coliform samples that noncommunity water systems shall take is as follows:**

**(I) A noncommunity water system using only groundwater and serving 1,000 or fewer persons per day on a permanent basis, January through December each year, shall take one sample each calendar quarter that the system provides water to the public.**

**(II) A noncommunity water system using surface water (in total or in part) or serving more than 1,000 persons per day during a given month shall take the same number of samples as a community water system serving the same number of persons specified in clause (A) for each month the system provides water to the public, even if the population served is temporarily fewer than 1,000 persons per day. A groundwater system determined to be under the influence of surface water shall begin monitoring at this frequency 6 months after the Department determines that the source water is under the direct influence of surface water.**

**(C)] (B)** A public water system that uses either a surface water or a GUDI source and does not practice filtration in compliance with Subchapter B (relating to MCLs, MRDLs or treatment technique requirements) shall collect at least one total coliform sample at the entry point, or an equivalent location as determined by the Department, [to the distribution system] within 24 hours of each day that the turbidity level in the source water, measured as specified in paragraph (2)(i)(B), exceeds 1.0 NTU. The Department may extend this 24-hour collection limit to a maximum of 72 hours if the system adequately demonstrates a logistical problem outside the system's control in having the sample analyzed within 30 hours of collection. A logistical problem outside the system's control may include a source water turbidity result exceeding 1.0 NTU over a holiday or weekend in which the services of a Department certified laboratory are not available within the prescribed sample holding time. These sample results shall be included in determining compliance with the MCL for [total coliforms] *E. coli* established under § 109.202(a)(2) and whether an assessment has been triggered under § 109.202(c)(4).

**(C) Prior to serving water to the public each season, a seasonal system shall collect one or more total coliform samples in accordance with the Department-approved start-up procedure specified in § 109.715 (relating to seasonal systems) until coliforms are not detected in a set of samples. These samples are considered special purpose samples under subparagraph (v).**

**(D) A system may take more than the minimum number of required routine samples only if the samples are collected in accordance with § 109.303(a)(2) and are included in the sample siting plan in accordance with § 109.701(a)(5). These samples shall be included in determining whether an assessment has been triggered under § 109.202(c)(4).**

**(E) A community water system serving 1,000 people or fewer or a noncommunity water system may be required to begin monitoring on an alternate schedule established by the Department. This determination will be made based on the results of a special monitoring evaluation performed during a sanitary survey. The system shall continue monitoring on the alternate schedule until otherwise notified by the Department.**

**(ii) *Repeat monitoring.* A public water system shall collect a set of check samples within 24 hours of being notified of a total coliform-positive routine [or check sample] sample, a total coliform-positive check sample or a total coliform-positive sample collected under subparagraph (i)(B). The Department may extend this 24-hour collection limit to a maximum of 72 hours if the system adequately demonstrates a logistical problem outside the system's control in having the check samples analyzed within 30 hours of collection. A logistical problem outside the system's control may include a coliform-positive sample result received over a holiday or weekend in which the services of a Department [certified] accredited laboratory are not available within the prescribed sample holding time. IF A PUBLIC WATER SYSTEM IS UNABLE TO SAMPLE IN ACCORDANCE WITH THE SAMPLE SITING PLAN, THE PUBLIC WATER SYSTEM MAY REQUEST THAT THE DEPARTMENT APPROVE USE OF A DIFFERENT REPEAT MONITORING LOCATION PRIOR TO COLLECTING EACH SAMPLE.**

(A) A public water system [which collects more than one routine sample per monitoring period] shall collect at least three check samples for each **routine** total coliform-positive sample found.

[B) A system which collects only one routine sample per monitoring period shall collect at least four check samples for each total coliform-positive sample found.

(C)] (B) The system shall collect at least one check sample from the sampling tap where the original total coliform-positive sample was taken[.]. **THE SYSTEM SHALL ALSO COLLECT** at least one check sample at [a]ANY tap within five service connections upstream of the original coliform-positive sample and at least one check sample **AT ANY TAP** within five service connections downstream of the original sampling site **UNLESS ALTERNATIVE LOCATIONS ARE APPROVED BY THE DEPARTMENT IN ACCORDANCE WITH § 109.701(a)(5) (RELATING TO SITING PLAN)**. If a total coliform-positive sample occurs at the end of the distribution system or one service connection away from the end of the distribution system, the water supplier shall collect an additional check sample upstream of the original sample site in lieu of a downstream check sample.

[D)] (C) A system shall collect all check samples on the same day, except that a system with a single service connection may collect the required set of check samples all on the same day or consecutively over a **[4-day] 3-day** period.

[E)] (D) **At a minimum, the system shall collect one set of check samples for each total coliform-positive routine sample.** If a check sample is total coliform-positive, the public water system shall collect **AN** additional **SET OF** check samples **FROM THE SAME LOCATIONS** in the manner specified in this subparagraph. The system shall continue to collect **ADDITIONAL SETS OF** check samples until either total coliforms are not detected in **a set of** check samples, or the system determines that **[the MCL for total coliforms as established under § 109.202(a)(2) has been exceeded and notifies the Department]** an assessment has been triggered under § 109.202(c)(4) **[and notifies the Department in accordance with § 109.701(a)(9)]**.

[F) If a system collecting fewer than five routine samples per month has one or more valid total coliform-positive samples, the system shall collect at least five routine samples during the next month the system provides water to the public. The number of routine samples for the month following a total coliform-positive sample may be reduced by the Department to at least one sample the next month if the reason for the total coliform-positive sample is determined and the problem has been corrected or will be corrected before the end of the next month.

(G)] (E) Results of all routine and check samples not invalidated by the Department shall be included in determining compliance with the MCL for **[total coliforms] E. coli** as established under § 109.202(a)(2) **or whether an assessment has been triggered under § 109.202(c)(4)**.

**(F) IF AN UPSTREAM OR DOWNSTREAM REPEAT MONITORING LOCATION IDENTIFIED IN THE SAMPLE SITING PLAN IS NOT AVAILABLE IN THE TIMEFRAME SPECIFIED IN THIS SUBPARAGRAPH, THE PUBLIC WATER SYSTEM MAY REQUEST THAT THE DEPARTMENT APPROVE USE OF A DIFFERENT LOCATION PRIOR TO COLLECTING EACH SAMPLE.**

(iii) *Invalidation of total coliform samples.* A total coliform sample invalidated under this paragraph does not count towards meeting the minimum monitoring requirements of this section.

(A) The Department may invalidate a total coliform-positive sample if one of the following applies:

(I) The laboratory which performed the analysis establishes that improper sample analysis caused the total coliform-positive result.

(II) A domestic or other nondistribution system plumbing problem exists when a coliform contamination incident occurs that is limited to a specific service connection from which a coliform-positive sample was taken in a public water system with more than one service connection. The Department's determination to invalidate a sample shall be based on a total coliform-positive check sample collected at the same tap as the original total coliform-positive sample and all total coliform-negative check samples collected within five service connections of the original total coliform positive sample. This type of sample invalidation does not apply to public water systems with only one service connection.

(III) A total coliform-positive sample result is due to a circumstance or condition which does not reflect water quality in the distribution system. The Department's decision to invalidate a sample shall be based on evidence that the sample result does not reflect water quality in the distribution system. In this case, the system shall still collect all check samples required under subparagraph (ii) to determine compliance with the MCL for [total coliforms] *E. coli* as established under § 109.202(a)(2) **or whether an assessment has been triggered under § 109.202(c)(4). The decision to invalidate a total coliform-positive sample result and supporting evidence will be documented by the Department, in writing, and approved and signed by the supervisor of the Department official who recommended the decision.**

(B) A laboratory shall invalidate a total coliform sample if no total coliforms are detected and one of the following occurs:

(I) The sample produces a turbid culture in the absence of gas production using an analytical method where gas formation is examined.

(II) The sample exhibits confluent growth or produces colonies too numerous to count with an analytical method using a membrane filter.

**(III) The sample produces a turbid culture in the absence of an acid reaction in the Presence-Absence Coliform Test.**

(C) If a laboratory invalidates a sample because of interference as specified in clause (B), the laboratory shall notify the system within 1 business day to collect another sample from the same location as the original sample within 24 hours of being notified of the interference and have it analyzed for the presence of total coliforms. The system shall resample within 24 hours of being notified of interference and continue to resample every 24 hours until it receives a valid result. The Department may extend this 24-hour limit to a maximum of 72 hours if the system adequately demonstrates a logistical problem outside the system's control in having the resamples analyzed within 30 hours. A logistical problem outside the system's control may include a notification of a laboratory sample invalidation, due to interference, which is received over a holiday or weekend in which the services of a Department [certified] accredited laboratory are not available within the prescribed sample holding time.

(iv) *Compliance determinations.*

[A) The MCL is based on the presence or absence of total coliforms in a sample, rather than coliform density.

(I) For a system which collects at least 40 samples per month, if no more than 5.0% of the samples collected during a month are total coliform-positive, the system is in compliance with the MCL for total coliforms.

(II) For a system which collects fewer than 40 samples per month, if no more than one sample collected during the month is total coliform-positive, the system is in compliance with the MCL for total coliforms.

(B) Any fecal coliform-positive repeat sample or *E. coli*-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or *E. coli*-positive routine sample constitutes a violation of the MCL for total coliforms.]

(A) A system is in compliance with the MCL for *E. coli* as specified under § 109.202(a)(2) for samples taken under this paragraph unless any of the following conditions occur:

(I) The system has an *E. coli*-positive check sample following a total coliform-positive routine sample.

(II) The system has a total coliform-positive check sample following an *E. coli*-positive routine sample.

(III) The system fails to take all required check samples following an *E. coli*-positive routine sample.

(IV) The system fails to test for *E. coli* when any check sample tests positive for total coliform.

**[(C)] (B)** A public water system shall determine compliance with the MCL for **[total coliforms in clauses (A) and (B)]** ***E. coli*** in clause (A) for each month in which it is required to monitor for total coliforms.

(v) ***Special purpose samples.*** Special purpose samples, such as those taken to determine whether disinfection practices are sufficient following pipe placement, replacement or repair, **those taken to investigate potential problems in the distribution system or those collected as part of a seasonal system start-up procedure,** may not be used to determine compliance with the MCL for **[total coliform]** ***E. coli*** as established under § 109.202(a)(2) or whether an assessment has been triggered under § 109.202(c)(4). Check samples taken under subparagraph (ii) are not considered special purpose samples, and shall be used to determine compliance with the monitoring **[and]**, MCL requirements **and treatment technique requirements** for total coliforms **and** ***E. coli*** established under **[this paragraph and]** § 109.202(a)(2) **and** (c)(4).

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### **§ 109.303. Sampling requirements.**

(a) The samples taken to determine a public water system's compliance with MCLs or MRDLs or to determine compliance with monitoring requirements shall be taken at the locations identified in §§ 109.301 and 109.302 (relating to general monitoring requirements; and special monitoring requirements), or as follows:

(1) Samples for determining compliance with the turbidity MCL shall be taken at each entry point associated with a surface water source that the Department has determined shall be filtered.

(2) Samples for determining compliance with the **[total coliform MCL]** ***E. coli*** MCL under § 109.202(a)(2) **(relating to State MCLs, MRDLs and treatment technique requirements)** **and for determining whether an assessment is triggered under § 109.202(c)(4)** shall be taken at regular intervals throughout the monitoring period at sites which are representative of water throughout the distribution system according to **[an approved]** a written sample siting plan as specified under § 109.701(a)(5) (relating to reporting and recordkeeping). **Representative locations include, but are not limited to, the following:**

- (i) Dead ends.**
- (ii) First service connection.**
- (iii) Finished water storage facilities.**
- (iv) Interconnections with other public water systems.**
- (v) Areas of high water age.**

**(vi) Areas with previous coliform detections.**

(3) Samples for determining compliance with the fluoride MCL shall be taken at each entry point.

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## **Subchapter D. PUBLIC NOTIFICATION**

### **§ 109.408. Tier 1 public notice—categories, timing and delivery of notice.**

(a) *General violation categories and other situations requiring a Tier 1 public notice.* A public water supplier shall provide Tier 1 public notice for the following circumstances:

(1) Violation of the MCL for [total coliforms when fecal coliforms or *E. coli* are present in the water distribution system] *E. coli*, as specified in § 109.202(a)(2) (relating to State MCLs, MRDLs [or] and treatment technique requirements), or when the water supplier fails to test for [fecal coliforms or] *E. coli* when any check sample tests positive for coliforms, as specified in § 109.301(3) (relating to general monitoring requirements).

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### **§ 109.409. Tier 2 public notice—categories, timing and delivery of notice.**

(a) *General violation categories and other situations requiring a Tier 2 public notice.* A public water supplier shall provide Tier 2 public notice for the following circumstances:

(1) All violations of the primary MCL, MRDL, treatment technique requirements and failure to take corrective action in Subchapters B, C, G, K, L or M, except when a Tier 1 notice is required under § 109.408 (relating to Tier 1 public notice—categories, timing and delivery of notice) or when the Department determines that a Tier 1 notice is required. The tier assignment for fluoride is not incorporated by reference. Under § 109.202(d) (relating to State MCLs, MRDLs [or] and treatment technique requirements), a public water system shall comply with the primary MCL for fluoride of 2 mg/L. As such, a public water supplier shall provide Tier 2 public notice for violation of the primary MCL for fluoride.

(2) Violations of the monitoring requirements in Subchapter C, K or M (relating to monitoring requirements; lead and copper; and additional requirements for groundwater sources), when the Department determines that a Tier 2 rather than a Tier 3 public notice is required, taking into account potential health impacts and persistence of the violation.

**[(3) Failure to report an *E. coli* MCL violation or an *E. coli*-positive routine or check sample as required under § 109.701(a)(3)(iv) (relating to reporting and recordkeeping).]**

{(3)} {(4)} Failure to comply with the terms and conditions of any variance or exemption in place under Subchapter I (relating to variances and exemptions issued by the Department).

{(4)} {(5)} Other violations or situations determined by the Department to require a Tier 2 public notice, taking into account potential chronic health impacts and persistence of the violation.

(b) *Timing for a Tier 2 public notice.* A public water supplier shall do the following

(1) Report the circumstances to the Department within 1 hour of discovery of a violation under subsection (a)(1), in accordance with § 109.701(a)(3) [(**relating to reporting and recordkeeping**)].

(2) Provide the public notice as soon as possible, but no later than 30 days after the system learns of the violation. If the public notice is posted, the notice shall remain in place for as long as the violation or situation persists, but in no case for less than 7 days, even if the violation or situation is resolved. The Department may, in appropriate circumstances, allow additional time for the initial notice of up to 3 months from the date the system learns of the violation. The Department will not grant an extension across the board or for an unresolved violation. Extensions granted by the Department will be in writing.

(3) Repeat the notice every 3 months as long as the violation or situation persists, unless the Department determines that appropriate circumstances warrant a different repeat notice frequency. In no circumstances may the repeat notice be given less frequently than once per year. The Department will not allow less frequent repeat notices across the board; [**or for an MCL violation for total coliforms established under § 109.202(a)(2);**] or for a violation of a treatment technique requirement for pathogenic bacteria, viruses and protozoan cysts as defined in § 109.202(c); or for other ongoing violations. Determinations granted by the Department for less frequent repeat notices will be in writing.

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#### **§ 109.410. Tier 3 public notice—categories, timing and delivery of notice.**

(a) *General violation categories and other situations requiring a Tier 3 public notice.* A public water supplier shall provide Tier 3 public notice for the following circumstances:

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**(5) FAILURE TO REPORT AN E. COLI MCL VIOLATION OR AN E. COLI-POSITIVE ROUTINE OR CHECK SAMPLE AS REQUIRED UNDER § 109.701(a)(3)(iv) (RELATING TO REPORTING AND RECORDKEEPING).**

**(6) FAILURE TO SUBMIT A COMPLETED ASSESSMENT FORM IN ACCORDANCE WITH § 109.701(a)(9)(ii).**

**(7) FAILURE TO SUBMIT CERTIFICATION OF COMPLETION OF A DEPARTMENT-APPROVED START-UP PROCEDURE BY A SEASONAL SYSTEM IN ACCORDANCE WITH § 109.715(e) (RELATING TO SEASONAL SYSTEMS).**

**Subchapter G. SYSTEM MANAGEMENT RESPONSIBILITIES**

**§ 109.701. Reporting and recordkeeping.**

(a) *Reporting requirements for public water systems.* Public water systems shall comply with the following requirements:

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(3) *One-hour reporting requirements.* A public water supplier shall report the circumstances to the Department within 1 hour of discovery for the following violations or situations:

\* \* \* \* \*

(iii) Circumstances exist which may adversely affect the quality or quantity of drinking water including, but not limited to:

\* \* \* \* \*

(H) A lack of resources that adversely affect operations, such as staff shortages, notification by the power utility of planned lengthy power outages or imminent depletion of treatment chemical inventories.

(iv) Any sample result is *E. coli*-positive.

(4) *Notice.* The water supplier shall, within 10 days of completion of each public notification required under Subchapter D (relating to public notification) with the exception of a CCR, submit to the Department a certification that it has fully complied with the public notification requirements. The water supplier shall include with this certification a representative copy of each type of notice distributed, published, posted and made available to persons served by the system and to the media and a description of the means undertaken to make the notice available.

(5) *Siting plan.* The water supplier shall submit to the Department a written sample siting plan for routine **and repeat** coliform sampling as required [by § 109.303(a)(2) (relating to sampling requirements) within 30 days of receipt of the Department's request for this information] under § 109.301(3) by \_\_\_\_ (*Editor's Note:* The blank refers to the effective date of adoption of this proposed rulemaking.). A public water system that begins operation after \_\_\_\_ (*Editor's Note:* The blank refers to the effective date of adoption of this proposed rulemaking.) shall submit the sample siting plan prior to serving water to the public.

(i) A sample siting plan shall include at a minimum the following:

(A) A list of [available] sample site locations **as specified in § 109.303(a)(2) (relating to sampling requirements)** in the distribution system to be used for routine monitoring purposes[, including the first service connection (or Department approved equivalent) and dead ends].

(B) The name of the company or individual collecting the samples.

(C) [A time period by which available sites representative of the distribution system are to be sampled during each monitoring period.] A sample collection schedule.

(D) Available repeat monitoring locations for each routine monitoring location.

(E) Triggered source water monitoring locations as specified under § 109.1303 (relating to triggered monitoring requirements for groundwater sources).

(F) The population served by the system.

(G) A description of the accessibility of sample sites.

(H) The beginning and ending dates of each operating season for seasonal systems.

[(ii) The Department's approval of a sample siting plan will be based upon the following:

(A) The population served by the system.

(B) The accessibility of sample sites.

(C) The past monitoring history for the system.

(D) The completeness of the sample siting plan which includes the information specified in subparagraph (i) and other information relating to the criteria in this subparagraph necessary for evaluation of the sample siting plan.

(iii)] (ii) A water supplier shall revise and resubmit its sample siting plan within 30 days of notification by the Department of a sample siting plan which fails to meet the criteria in [subparagraphs (i) and (ii)] subparagraph (i).

[iv)] (iii) The water supplier shall notify the Department of subsequent revisions to [an approved] a coliform sample siting plan [for approval] as they occur. Revisions to [an approved] a coliform sample siting plan shall be submitted in written form to the Department within 30 days of notifying the Department of the revisions.

(6) *Records.* Upon request by the Department, the water supplier shall submit copies of records required to be maintained under this subchapter.

(7) *Form.* Reports required by this chapter shall be submitted in a manner or form acceptable to the Department.

(8) *Reporting requirements for disinfectant residuals.* In addition to the reporting requirements specified in paragraph (1), public water systems shall report MRDL monitoring data as follows:

(i) Systems monitoring for chlorine dioxide under § 109.301(13) shall report the number of days chlorine dioxide was used at each entry point during the last month.

(ii) Systems monitoring for either chlorine or chloramines under § 109.301(13) shall report the following:

(A) The number of samples taken during the month.

(B) The arithmetic average of all distribution samples taken in the last month.

(9) *Level 1 and Level 2 assessments.* A public water supplier shall:

~~{(i) Report to the Department within 48 hours of triggering a Level 1 or Level 2 assessment under § 109.202(e)(4).}~~

~~{(ii)}~~(i) Submit an assessment form completed in accordance with § 109.705(b) (relating to system evaluations and assessments) to the Department within 30 days after the system learns that it has exceeded a trigger under § 109.202(c)(4).

~~{(iii)}~~(ii) Submit a revised assessment form in accordance with § 109.705(b) within 30 days of notification from the Department that revisions are necessary.

[(9)] (10) *Noncompliance report.* Except where a different reporting period is specified in this chapter, the water supplier shall report to the Department within 48 hours the failure to comply with any National Primary Drinking Water Regulation, including the failure to comply with any monitoring requirement set forth in this chapter.

\* \* \* \*

(d) *Record maintenance.* The public water supplier shall retain on the premises of the public water system or at a convenient location near the premises the following:

\* \* \* \*

(8) Copies of public notifications issued under Subchapter D and certifications made to the Department under subsection (a)(4) shall be kept for 3 years after issuance.

**(9) A copy of any assessment form and documentation of corrective actions completed as a result of those assessments or other available summary documentation of the sanitary defects and corrective actions taken under § 109.705(b) shall be kept at least 5 years after completion of the assessment or corrective action.**

*(e) Reporting requirements for public water systems required to perform individual filter monitoring under § 109.301(1)(iv).*

\* \* \* \*

## **§ 109.702. Operation and maintenance plan.**

(a) A community water supplier shall develop an operation and maintenance plan for the community water system. The operation and maintenance plan must generally conform to the guidelines contained in the Department's *Public Water Supply Manual* and contain at least the following information:

\* \* \* \*

**(9) [Sanitary survey program] System evaluation program as required under § 109.705(a) (relating to system evaluations and assessments)** including the wellhead protection program for any water system that develops one under § 109.713 (relating to wellhead protection [programs] program).

\* \* \* \*

## **§ 109.705. [Sanitary surveys] System evaluations and assessments.**

(a) A community water supplier shall conduct **[a sanitary survey]** **an evaluation** of the water system at least annually. The **[survey]** **evaluation** shall include the following activities:

\* \* \* \*

(5) Pressure surveys consisting of a measurement of pressures at representative points in the distribution system, which shall include new water line extensions. Surveys shall be made during periods of maximum and minimum usage. Records of these surveys shall show the date and time of the beginning and end of the test and the location at which the test was made.

**[(b) A community water system which does not collect five or more routine coliform samples per month shall do one of the following:**

**(1) Undergo a sanitary survey conducted by the Department by June 29, 1994, and thereafter undergo a subsequent sanitary survey conducted by the Department at a minimum frequency of every 3 years.**

(2) Increase the number of routine coliform samples collected to at least five samples per month if the Department does not conduct a sanitary survey by June 29, 1994, or within 3 years following the initial or a subsequent sanitary survey. This increased sampling frequency shall be in place of the monitoring frequency requirements for coliforms in § 109.301(3)(i) (relating to general monitoring requirements) and remain in effect through the month in which the next sanitary survey is conducted by the Department.

(c) A noncommunity water system which does not collect five or more routine coliform samples per month shall do one of the following:

(1) Undergo an initial sanitary survey conducted by the Department by June 29, 1999, and thereafter undergo a subsequent sanitary survey at a minimum of every 5 years after the initial sanitary survey.

(2) Increase the number of routine coliform samples collected to at least five samples per month if the Department does not conduct a sanitary survey by June 29, 1999, or within 5 years following the initial or a subsequent sanitary survey. This increased sampling frequency shall be in place of the monitoring frequency requirements for coliforms in § 109.301(3)(i) and shall remain in effect through the month in which the next sanitary survey is conducted by the Department.]

(b) A public water system shall conduct Level 1 and 2 assessments required under § 109.202(c)(4) (relating to State MCLs, MRDLs and treatment technique requirements). The public water system shall also comply with any expedited actions or additional actions required by the Department in the case of an *E. coli* MCL violation.

(1) A Level 1 or Level 2 assessment must include review and identification of the following elements, at a minimum:

(i) Atypical events that could affect distributed water quality or indicate that distributed water quality was impaired.

(ii) Changes in distribution system maintenance and operation that could affect distributed water quality, including water storage.

(iii) Sources and treatment processes that impact distributed water quality.

(iv) Existing water quality monitoring data.

(v) Inadequacies in sample sites, sampling protocols and sample processing.

(2) Within 30 days of triggering a Level 1 or Level 2 assessment under § 109.202(c)(4), a public water system shall complete the appropriate assessment and submit a report to the Department on forms acceptable to the Department.

**(3) A Level 1 assessment must be conducted by competent personnel qualified to operate and maintain the water system's facilities.**

**(4) A Level 2 assessment must be conducted by one or more individuals meeting the following criteria:**

**(i) Holds a valid certificate issued under Chapter 302 (relating to administration of the water and wastewater operators' certification program) to operate a water system.**

**(ii) Maintains certification in the appropriate class and subclassifications as defined in Chapter 302 for the size and treatment technologies for the water system being assessed.**

**(5) The Department may conduct a Level 1 or Level 2 assessment in addition to the assessment conducted by the public water system.**

**(6) In the completed assessment report, the public water system shall describe all sanitary defects identified, corrective actions completed and a proposed timetable for any corrective actions not already completed. The assessment report may also note that no sanitary defects were identified.**

**(7) If the Department determines that a Level 1 or Level 2 assessment is not sufficient, the public water system shall consult with the Department within 14 days of receiving written notification from the Department that the assessment is not sufficient. Following consultation, the Department may require a public water system to revise the assessment. A public water system shall submit a revised assessment form to the Department no later than 30 days from the date of consultation.**

**(8) Public water systems shall correct sanitary defects found through either a Level 1 or Level 2 assessment conducted in accordance with this subsection. For corrections not completed by the time of submission of the assessment report, the public water system shall complete the corrective actions in compliance with a timetable approved by the Department in consultation with the system. The system shall notify the Department when each scheduled corrective action is completed.**

**(9) At any time during the assessment or corrective action phase, either the public water system or the Department may request a consultation with the other party to determine the appropriate actions to be taken. The public water system may consult with the Department on all relevant information that may impact its ability to comply with a requirement of this subsection.**

**[d] (c) The following apply to significant deficiencies identified at public water systems supplied by a surface water source and public water systems supplied by a groundwater source under the direct influence of surface water:**

**(1) For sanitary surveys performed by the Department, a system shall respond in writing to significant deficiencies identified in sanitary survey reports no later than 45 days after receipt of**

the report, indicating how and on what schedule the system will address significant deficiencies noted in the survey.

(2) A system shall correct significant deficiencies identified in sanitary survey reports according to the schedule approved by the Department, or if there is no approved schedule, according to the schedule reported under paragraph (1) if the deficiencies are within the control of the system.

**[e] (d)** Significant deficiencies identified by the Department at public water systems using groundwater shall comply with § 109.1302(c) (relating to **groundwater systems with significant deficiencies or source water *E. coli* contamination**) treatment technique requirements).

*(Editor's Note:* The following section is new and printed in regular type to enhance readability.)

### **§ 109.715. Seasonal systems.**

**(a) A new seasonal system shall submit a start-up procedure with the construction permit application or brief description as required under § 109.505(a) (relating to requirements for noncommunity water systems).**

**(b) A seasonal system approved by the Department to operate prior to \_\_\_\_** (*Editor's Note:* The blank refers to the effective date of adoption of this proposed rulemaking.), shall submit a start-up procedure to the Department by \_\_\_\_ (*Editor's Note:* The blank refers to 30 days after effective date of adoption of this proposed rulemaking.).

**(c) If the Department determines that a start-up procedure is not sufficient, the public water system shall submit a revised start-up procedure within 30 days of receiving written notification from the Department.**

**(d) A seasonal system shall submit to the Department for approval any revisions to an approved start-up procedure prior to serving water to the public the next season.**

**(e) A seasonal system shall demonstrate completion of a Department-approved start-up procedure by submitting written certification prior to serving water to the public each season.**

## **Subchapter H. LABORATORY CERTIFICATION**

### **§ 109.810. Reporting and notification requirements.**

\* \* \* \*

**(b) A laboratory accredited under Chapter 252 shall whenever the results of test measurements or analyses performed by the laboratory under this chapter indicate an MCL,**

MRDL or a treatment technique performance requirement under § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements) is exceeded, or an action level under § 109.1102(a) (relating to [lead and copper] action levels and treatment technique requirements) is exceeded, or a sample result requires the collection of check or confirmation samples under § 109.301 (relating to general monitoring requirements), or **any check sample collected under § 109.301(3) is total coliform-positive, or A SAMPLE COLLECTED BY A SEASONAL SYSTEM AS PART OF A DEPARTMENT-APPROVED START-UP PROCEDURE UNDER § 109.301(3)(i)(C) IS TOTAL COLIFORM-POSITIVE, OR** a sample collected under Subchapter M (relating to additional requirements for groundwater sources) is *E. coli*-positive:

(1) Notify the public water supplier by telephone within 1 hour of the laboratory's determination. If the supplier cannot be reached within that time, notify the Department by telephone within 2 hours of the determination. If it is necessary for the laboratory to contact the Department after the Department's routine business hours, the laboratory shall contact the appropriate Department regional office's after-hours emergency response telephone number and provide information regarding the occurrence, the name of a contact person and the telephone number where that individual may be reached in the event further information is needed. If the Department's appropriate emergency number cannot be reached, the laboratory shall notify the appropriate Department regional office by telephone within 1 hour of the beginning of the next business day. Each accredited laboratory shall be responsible for the following:

(i) Obtaining and then maintaining the Department's current after-hours emergency response telephone numbers for each applicable regional office.

(ii) Establishing or updating a standard operating procedure by November 8, 2002, and at least annually thereafter to provide the information needed to report the occurrences to the Department. The information regarding the public water system must include, but is not limited to, the PWSID number of the system, the system's name, the contaminant involved in the occurrence, the level of the contaminant found, where the sample was collected, the dates and times that the sample was collected and analyzed, the name and identification number of the [certified] accredited laboratory, the name and telephone number of a contact person at the laboratory and what steps the laboratory took to contact the public water system before calling the Department.

\* \* \* \*

## **Subchapter I. VARIANCES AND EXEMPTIONS ISSUED BY THE DEPARTMENT**

### **§ 109.901. Requirements for a variance.**

\* \* \* \*

(b) The MCL for [total coliforms] *E. coli* established under § 109.202(a) (relating to State MCLs, MRDLs and treatment technique requirements) is not eligible for a variance.

\* \* \* \*

### **§ 109.903. Requirements for an exemption.**

\* \* \* \*

(b) The MCL for [total coliforms] *E. coli* established under § 109.202(a) (relating to State MCLs, MRDLs and treatment technique requirements) is not eligible for an exemption.

\* \* \* \*

## **Subchapter J. BOTTLED WATER AND VENDED WATER SYSTEMS, RETAIL WATER FACILITIES AND BULK WATER HAULING SYSTEMS**

### **§ 109.1003. Monitoring requirements.**

(a) *General monitoring requirements.* Bottled water and vended water systems, retail water facilities and bulk water hauling systems shall monitor for compliance with the MCLs and MRDLs in accordance with § 109.301 (relating to general monitoring requirements) and shall comply with § 109.302 (relating to special monitoring requirements). The monitoring requirements shall be applied as follows, except that systems which have installed treatment to comply with primary MCL shall conduct quarterly operational monitoring for the contaminant which the facility is designed to remove:

(1) Bottled water systems, retail water facilities and bulk water hauling systems, for each entry point shall:

(i) Monitor [for microbiological contaminants] weekly for the presence or absence of total coliform. For any total coliform positive routine or check sample, determine the presence or absence of *E. coli*. All analyses must be conducted in accordance with analytical techniques approved by the Department under § 109.304 (relating to analytical requirements). A system may forego *E. coli* testing on a total coliform-positive sample if the system assumes that any total coliform-positive sample is also *E. coli*-positive. A system which chooses to forego *E. coli* testing shall, under § 109.701(a)(3) (relating to reporting and recordkeeping), notify the Department within 1 hour after the water system learns of the violation or the situation, and shall provide public notice in accordance with § 109.1004 (relating to public notification).

\* \* \* \*

(2) Vended water systems shall monitor in accordance with paragraph (1) except that vended water systems qualifying for permit by rule under § 109.1005(b), for each entry point shall:

(i) Monitor monthly for [microbiological contaminants] the presence or absence of total coliform. For any total coliform positive routine or check sample, determine the presence

**or absence of *E. coli*. All analyses must be conducted in accordance with analytical techniques approved by the Department under § 109.304. A system may forego *E. coli* testing on a total coliform-positive sample if the system assumes that any total coliform-positive sample is also *E. coli*-positive. A system which chooses to forego *E. coli* testing shall, under § 109.701(a)(3), notify the Department within 1 hour after the water system learns of the violation or the situation, and shall provide public notice in accordance with § 109.1004.**

\* \* \* \*

**(c) *Repeat monitoring for microbiological contaminants.***

**(1) If a sample collected in accordance with subsection (a)(1)(i) or (2)(i) is found to be total coliform-positive:**

- (i) The bottled water system shall collect a set of three additional samples (check) from the same lot or batch of the type of product.**
- (ii) The vended water, retail water facility or bulk water hauling systems shall collect a set of [four] three additional samples (check) from the same entry point (machine, point of delivery or carrier vehicle).**

**(2) Samples shall be collected for analysis within 24 hours of being notified of the total coliform-positive sample. The Department may extend this 24-hour collection limit to a maximum of 72 hours if the system adequately demonstrates a logistical problem outside the system's control in having the check samples analyzed within 30 hours of collection. A logistical problem outside the system's control may include a coliform-positive result received over a holiday or weekend in which the services of a Department certified laboratory are not available within the prescribed sample holding time.**

**(3) [If a check sample is total coliform-positive, the system shall be deemed to have violated the MCL for total coliforms established under § 109.1002 (relating to MCLs, MRDLs or treatment techniques).] At a minimum, the system shall collect one set of check samples for each total coliform-positive routine sample. If a check sample is total coliform-positive, the public water system shall collect additional check samples in the manner specified in this subsection. The system shall continue to collect check samples until either total coliforms are not detected in a set of check samples, or the system determines that an assessment has been triggered under § 109.202(c)(4) (relating to State MCLs, MRDLs and treatment technique requirements).**

**(d) A bulk water hauling system that serves at least 25 of the same persons year around. A bulk water hauling system that is determined by the Department to serve at least 25 of the same persons year round shall comply with the monitoring requirements for community water systems in accordance with § 109.301.**

\* \* \* \*

## § 109.1008. System management responsibilities.

\* \* \* \*

(d) **[Sanitary survey] Annual system evaluation requirements.** Bottled water and vended water systems, retail water facilities and bulk water hauling systems shall conduct **[a sanitary survey]** **an evaluation** of the water system at least annually**[, the survey to include]** that **includes** the activities listed in paragraphs (1)—(4). A bottled water, vended water, bulk water hauling system or retail water facility obtaining finished water from a permitted public water system is not required to perform the activities in paragraphs (1) and (2) if the Department determines that there are no potential problems necessitating inspection and evaluation of the source.

\* \* \* \*

(f) **Cross-connection control program.** At the direction of the Department, the bottled water, vended water, retail water or bulk water supplier shall develop and implement a comprehensive control program for the elimination of existing cross-connections or the effective containment of sources of contamination, and prevention of future cross connections. A description of the program, including the following information, shall be submitted to the Department for approval:

- (1) A description of the methods and procedures to be used.
- (2) An implementation schedule for the program.
- (3) A description of the methods and devices which will be used to protect the water system.

(g) **Level 1 and Level 2 assessments.** Bottled water systems, vended water systems, retail water facilities and bulk water hauling systems shall comply with the requirements of § 109.705(b) (relating to system evaluations and assessments). Bottled water systems, vended water systems, retail water facilities and bulk water hauling systems may use a Nationally-recognized organization which inspects bottled water systems for compliance with 21 CFR Part 129, such as NSF, or another organization, state or country which utilizes an inspection protocol as stringent as NSF's protocols to conduct the Level 2 assessment.

(h) **Seasonal systems.** A bottled water system, vended water system, retail water facility or bulk water hauling system that operates as a seasonal system shall comply with the requirements of § 109.715 (relating to seasonal systems).