**Section 611.1001 Source Water Monitoring Requirements: Source Water Monitoring**

a) Initial Round of Source Water Monitoring. A supplier must conduct the following monitoring on the schedule in subsection (c), unless it meets the monitoring exemption criteria in subsection (d).

1) A filtered system supplier serving 10,000 or more people must sample its source water for Cryptosporidium, E. coli, and turbidity at least monthly for 24 months.

2) An unfiltered system supplier serving 10,000 or more people must sample its source water for Cryptosporidium at least monthly for 24 months.

3) Smaller System Suppliers Monitoring for E. coli

A) A filtered system supplier serving fewer than 10,000 people must sample its source water for E. coli at least once every two weeks for 12 months.

B) A filtered system supplier serving fewer than 10,000 people may avoid E. coli monitoring if the system notifies the Agency that it will monitor for Cryptosporidium as described in subsection (a)(4). The system must notify the Agency no later than three months prior to the date before which the system is otherwise required to start E. coli monitoring under subsection (c).

4) Smaller System Suppliers Monitoring for Cryptosporidium. A filtered system supplier serving fewer than 10,000 people must sample its source water for Cryptosporidium at least twice per month for 12 months or at least monthly for 24 months if it meets any of the conditions set forth in subsections (a)(4)(A) through (a)(4)(C), subject to the limitations of subsection (a)(4)(D), based on monitoring conducted under subsection (a)(3).

A) For a supplier using a lake or reservoir source, the annual mean E. coli concentration is greater than 10 E. coli/100 mL.

B) For a supplier using a flowing stream source, the annual mean E. coli concentration is greater than 50 E. coli/100 mL.

C) The supplier does not conduct E. coli monitoring as described in subsection (a)(3).

D) A supplier using groundwater under the direct influence of surface water must comply with the requirements of subsection (a)(4) based on the E. coli level that applies to the nearest surface water body. If no surface water body is nearby, the system must comply based on the requirements that apply to a supplier using a lake or reservoir source.

5) For a filtered system supplier serving fewer than 10,000 people, the Agency may issue a SEP approving monitoring for an indicator other than E. coli under subsection (a)(3). The Agency may also issue a SEP approving an alternative to the E. coli concentration in subsection (a)(4)(A), (a)(4)(B), or (a)(4)(D) to trigger Cryptosporidium monitoring. This approval by the Agency must be provided to the supplier in writing, and it must include the basis for the Agency's determination that the alternative indicator or trigger level will provide a more accurate identification of whether a system will exceed the Bin 1 Cryptosporidium level set forth in Section 611.1010.

6) An unfiltered system supplier serving fewer than 10,000 people must sample its source water for Cryptosporidium at least twice per month for 12 months or at least monthly for 24 months.

7) A supplier may sample more frequently than required by this Section if the sampling frequency is evenly spaced throughout the monitoring period.

b) Second Round of Source Water Monitoring. A supplier must conduct a second round of source water monitoring that meets the requirements for monitoring parameters, frequency, and duration described in subsection (a), unless it meets the monitoring exemption criteria in subsection (d). The supplier must conduct this monitoring on the schedule set forth in subsection (c).

c) Monitoring Schedule. A supplier must perform the two rounds of monitoring subsections (a) and (b) require on the schedule in this subsection (c), unless the supplier meets the monitoring exemption criteria in subsection (d).

1) Suppliers That Serve at Least 100,000 People

A) The suppliers must have begun the first round of source water monitoring no later than the end of October 2006.

B) The suppliers must have begun the second round of source water monitoring no later than the end of April 2015.

2) Suppliers That Serve from 50,000 to 99,999 People

A) The suppliers must have begun the first round of source water monitoring no later than the end of April 2007.

B) The suppliers must have begun the second round of source water monitoring no later than the end of October 2015.

3) Suppliers That Serve from 10,000 to 49,999 People

A) The suppliers must have begun the first round of source water monitoring no later than the end of April 2008.

B) The suppliers must have begun the second round of source water monitoring no later than the end of October 2016.

4) Suppliers That Serve Fewer Than 10,000 People and That Monitor for E. coli

A) The suppliers must have begun the first round of source water monitoring no later than the end of October 2008.

B) The suppliers must have begun the second round of source water monitoring no later than the end of October 2017.

5) Suppliers That Serve Fewer Than 10,000 People and That Monitor for Cryptosporidium

A) The suppliers must have begun the first round of source water monitoring no later than the end of April 2010.

B) The suppliers must have begun the second round of source water monitoring no later than the end of April 2019.

BOARD NOTE: The Board retained the past implementation dates until implementation of the Long Term 2 Enhanced Surface Water Treatment Rule in this Subpart Z is complete.

d) Monitoring Avoidance

1) A filtered system supplier is not required to conduct source water monitoring under this Subpart Z if the system will provide a total of at least 5.5-log of treatment for Cryptosporidium, equivalent to meeting the treatment requirements of Bin 4 in Section 611.1011.

2) An unfiltered system supplier is not required to conduct source water monitoring under this Subpart Z if the system will provide a total of at least 3-log Cryptosporidium inactivation, equivalent to meeting the treatment requirements for an unfiltered system supplier with a mean Cryptosporidium concentration of greater than 0.01 oocysts/L in Section 611.1012.

3) If a supplier chooses to provide the level of treatment set forth in subsection (d)(1) or (d)(2), as applicable, rather than start source water monitoring, it must notify the Agency in writing no later than the date on which the system is otherwise required to submit a sampling schedule for monitoring under Section 611.1002. Alternatively, a supplier may choose to stop sampling at any point after it has initiated monitoring if it notifies the Agency in writing that it will provide this level of treatment. The supplier must install and operate technologies to provide this level of treatment before the applicable treatment compliance date set forth in Section 611.1013.

e) Plants Operating Only Part of the Year. A supplier that has a Subpart B plant that operates for only part of the year must conduct source water monitoring in accordance with this Subpart Z, but with the following modifications:

1) The supplier must sample its source water only during the months that the plant operates, unless the Agency issue a SEP specifying another monitoring period based on plant operating practices.

2) A supplier with plants that operate less than six months per year and that monitors for Cryptosporidium must collect at least six Cryptosporidium samples per year during each of two years of monitoring. Samples must be evenly spaced throughout the period during which the plant operates.

f) New Sources and New Systems

1) New sources. A supplier that begins using a new source of surface water or groundwater under the direct influence of surface water after the supplier was required to begin monitoring under subsection (c) must monitor the new source on a schedule that the Agency has approved in a SEP. Source water monitoring must meet the requirements of this Subpart Z. The supplier must also meet the bin classification and Cryptosporidium treatment requirements of Sections 611.1010 and 611.1011 or Section 611.1012, as applicable, for the new source on a schedule that the Agency has approved in a SEP.

2) The requirements of Section 611.1001(f) apply to a Subpart B system supplier that begins operation after the applicable monitoring start date set forth in subsection (c).

3) The supplier must begin a second round of source water monitoring no later than six years following initial bin classification under Section 611.1010 or determination of the mean Cryptosporidium level under Section 611.1012.

g) Failure to collect any source water sample required under this Section in accordance with the sampling schedule, sampling location, analytical method, approved laboratory, and reporting requirements of Sections 611.1002 through 611.1006 is a monitoring violation.

h) Grandfathering Monitoring Data. A supplier may use (grandfather) monitoring data collected prior to the applicable monitoring start date in subsection (c) to meet the initial source water monitoring requirements in subsection (a). Grandfathered data may substitute for an equivalent number of months at the end of the monitoring period. All data submitted under this subsection must meet the requirements set forth in Section 611.1007.

BOARD NOTE: This Section derives from 40 CFR 141.701.

(Source: Amended at 47 Ill. Reg. 16486, effective November 2, 2023)