**Section 611.1012 Treatment Technique Requirements: Unfiltered System Cryptosporidium Treatment Requirements**

a) Determination of the Mean Cryptosporidium Level

1) Following completion of the initial source water monitoring required by Section 611.1001(a), an unfiltered system supplier is required to have calculated the arithmetic mean of all Cryptosporidium sample concentrations reported under Section 611.1001(a). The supplier is required to have reported this value to the Agency for approval no later than six months after the month the supplier is required to have completed initial source water monitoring based on the applicable schedule set forth in Section 611.1001(c).

2) Following completion of the second round of source water monitoring required by Section 611.1001(b), an unfiltered system supplier must calculate the arithmetic mean of all Cryptosporidium sample concentrations reported under Section 611.1001(b). The supplier must report this value to the Agency for approval no later than six months after the month the supplier is required to complete the second round of source water monitoring based on the applicable schedule set forth in Section 611.1001(c).

3) If the monthly Cryptosporidium sampling frequency varies, a supplier must first calculate a monthly average for each month of monitoring. The supplier must then use these monthly average concentrations, rather than individual sample concentrations, in the calculation of the mean Cryptosporidium level in subsection (a)(1) or (a)(2).

4) The report to the Agency of the mean Cryptosporidium levels calculated under subsections (a)(1) and (a)(2) must include a summary of the source water monitoring data used for the calculation.

5) A failure to comply with the conditions of subsection (a) is a violation of the treatment technique requirement.

b) Cryptosporidium Inactivation Requirements. An unfiltered system supplier must provide the level of inactivation for Cryptosporidium specified in this subsection, based on its mean Cryptosporidium levels, as determined under subsection (a) and according to the applicable schedule set forth in Section 611.1013.

1) An unfiltered system supplier with a mean Cryptosporidium level of 0.01 oocysts/ℓ or less must provide at least 2-log Cryptosporidium inactivation.

2) An unfiltered system supplier with a mean Cryptosporidium level of greater than 0.01 oocysts/ℓ must provide at least 3-log Cryptosporidium inactivation.

c) Inactivation Treatment Technology Requirements. An unfiltered system supplier must use chlorine dioxide, ozone, or UV, as described in Section 611.1020, to meet the Cryptosporidium inactivation requirements of this Section.

1) A supplier that uses chlorine dioxide or ozone and fails to achieve the Cryptosporidium inactivation required in subsection (b) on more than one day in the calendar month is in violation of the treatment technique requirement.

2) A supplier that uses UV light and fails to achieve the Cryptosporidium inactivation required in subsection (b)by meeting the criteria in Section 611.1020(d)(3)(B) is in violation of the treatment technique requirement.

d) Use of Two Disinfectants. An unfiltered system supplier must meet the combined Cryptosporidium inactivation requirements of this Section and Giardia lamblia and virus inactivation requirements of Section 611.241 using a minimum of two disinfectants, and each of two disinfectants must separately achieve the total inactivation required for any of Cryptosporidium, Giardia lamblia, or viruses.

BOARD NOTE: Derived from 40 CFR 141.712.

(Source: Amended at 44 Ill. Reg. 6996, effective April 17, 2020)