



## Long Term 2 Enhanced Surface Water Treatment (LT2) Rule

### *A Quick Reference Guide for Schedule 3 Systems*

#### **Purposes of Rule:**

Improve public health protection through the control of microbial contaminants by focusing on systems with elevated *Cryptosporidium* risk. Prevent significant increases in microbial risk that might otherwise occur when systems implement the Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 DBPR).

#### **General Description of Rule:**

The LT2 Rule requires systems to monitor their source water, calculate an average *Cryptosporidium* concentration, and use those results to determine if their source is vulnerable to contamination and may require additional treatment.

#### **Applicability of Rule:**

The LT2 Rule applies to all public water systems (PWSs) that use surface water. The timeline for the rule requirements varies depending on which schedule the water system is placed into and there are a total of four schedules. Schedule 3 systems include PWSs serving 10,000 to 49,999 people OR wholesale PWSs that are part of a combined distribution system in which the largest system serves 10,000 to 49,999 people.

#### **General Description of Rule:**

##### Source Water Monitoring

Surface water systems shall conduct 24 months of source water monitoring for *Cryptosporidium*. Surface water systems shall also record source water *E. coli* and turbidity levels. Surface water systems will be classified into one of four “Bins” based on the results of their source water monitoring.

Surface water systems providing at least 5.5 log of treatment for *Cryptosporidium* and those systems that intend to install this level of treatment are not required to conduct source water monitoring.

##### Installation of Additional Treatment

Surface water systems shall provide additional treatment for *Cryptosporidium* based on their bin classification (average source water *Cryptosporidium* concentration), using treatment options from the “microbial toolbox.”

##### Disinfection Profiling and Benchmarking

After completing the initial round of source water monitoring any system that plans on making a significant change to their disinfection practices shall:

- Create disinfection profiles for *Giardia lamblia* and viruses;
- Calculate a disinfection benchmark; and,
- Consult with Ohio EPA prior to making a significant change in disinfection practice.

#### **Bin Classification**

<i>Cryptosporidium</i> Concentration (oocysts/L)	Bin Classification	Conventional Treatment	Direct Filtration	Slow Sand or Diatomaceous Earth Filtration	Alternative Filtration
<0.075	Bin 1	No additional treatment required	No additional treatment required	No additional treatment required	No additional treatment required
0.075 to < 1	Bin 2	1 log	1.5 log	1 log	(1)

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<i>Cryptosporidium</i> Concentration (oocysts/L)	Bin Classification	Conventional Treatment	Direct Filtration	Slow Sand or Diatomaceous Earth Filtration	Alternative Filtration
1.0 to < 3.0	Bin 3	2 log	2.5 log	2 log	(2)
>/- 3.0	Bin 4	2.5 log	3 log	2.5 log	(3)

- (1) As determined by Ohio EPA such that the total removal/inactivation > 4.0-log.  
 (2) As determined by Ohio EPA such that the total removal/inactivation >5.0-log.  
 (3) As determined by Ohio EPA such that the total removal/inactivation > 5.5-log.

### Rule Timeline

<u>Schedule 3 Systems</u> (PWSs serving 10,000 to 49,999 people OR wholesale PWSs that are part of a combined distribution system in which the largest system serves 10,000 to 49,999 people)	
Date	Milestone
July 1, 2016	Systems shall submit:  Completed sampling plan which includes a schedule that specifies the dates of sample collection and location of sampling for the second round of source water monitoring to Ohio EPA; or  Notice to Ohio EPA of the system's intent to provide at least 5.5-log of treatment for <i>Cryptosporidium</i> . Systems should consult with Ohio EPA prior to submitting this notice.
October 2016	No later than this month, systems shall begin 24 months of source water monitoring.
December 10, 2016	Systems submit results for first month of source water monitoring. (Results for monthly samples shall be submitted no later than 10 days after the end of the first month following the month when the sample is collected.)
September 2018	No later than this month, systems shall complete their second round of source water monitoring.
March 1, 2019	No later than this month, systems shall report their initial bin classification to Ohio EPA for approval.

<b>If the second round bin classification moves the system to a bin that requires additional treatment the following is applicable:</b>	
Within six months of receiving the director's approval of bin classification	Systems shall submit a general plan indicating the system's plan for complying with any additional <i>Cryptosporidium</i> inactivation and/or removal requirements. A timeline for project completion must be included.
Systems shall install and operate additional treatment in accordance with their bin classification and the schedule the director approves.	

### Contact

For additional information on the LT2 Rule, contact your Ohio EPA Division of Drinking and Ground Waters LT2 representative:

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