

3745-90-05 **Harmful algal blooms - treatment techniques.**

This rule applies to all public water systems except consecutive water systems.

- (A) A public water system shall develop and submit to the director written treatment optimization protocols when microcystins are detected in a sample collected at a raw water sampling point or a finished water sampling point. The protocols shall include treatment adjustments that will be made under various raw and finished water conditions. In developing the protocols, the public water system shall review and optimize existing treatment for microcystins, considering effective strategies for cyanotoxin treatment such as avoiding lysing cyanobacterial cells, optimizing removal of intact cells, optimizing barriers for extracellular cyanotoxin removal or destruction, optimizing sludge removal and discontinuing or minimizing backwash recycling. The treatment optimization protocols shall be submitted to the director in accordance with the following timelines:
- (1) Within thirty days of the effective date of this rule, for public water systems which have detected microcystins in a sample collected between July 16, 2015 and the effective date of this rule.
 - (2) If a public water system was not required to submit written treatment optimization protocols under paragraph (A)(1) of this rule, then within thirty days of a detection of microcystins in a sample collected after the effective date of this rule.
- (B) A public water system shall comply with all of the following when monitoring conducted in accordance with rule 3745-90-03 of the Administrative Code indicates microcystins concentrations exceed 1.6 micrograms per liter in a sample collected at the raw water sampling point more than once within a consecutive twelve-month period, or when microcystins are detected in a sample collected at a finished water sampling point or a distribution sampling point:
- (1) Within one hundred and twenty days, the public water system shall submit a cyanotoxin general plan to the director for approval in accordance with paragraph (C) of rule 3745-91-02 of the Administrative Code. The cyanotoxin general plan shall include both short-term and long-term actions to prevent exceedances of the microcystins action levels established in paragraph (A)(1) or (A)(2) of rule 3745-90-02 of the Administrative Code in finished water. The cyanotoxin general plan may include one or a combination of source water protection activities, avoidance strategies, reservoir management and in-plant treatment technologies. The cyanotoxin general plan shall include a schedule for implementation or a demonstration that existing practices are sufficient to prevent exceedances of the microcystins action levels established in paragraph (A)(1) or (A)(2) of rule 3745-90-02 of the Administrative Code in finished water. The cyanotoxin general plan may be approved by the director with or without conditions or disapproved in accordance with the provisions of Chapter 3745-91 of the Administrative Code.
 - (2) Implement the approved cyanotoxin general plan in accordance with the approved schedule.
 - (3) Continue to monitor for microcystins in accordance with rule 3745-90-03 of the

Administrative Code to demonstrate treatment effectiveness.

- (C) If the system does not comply with paragraph (A), (B)(1) or (B)(2) of this rule, the public water system is in violation of the treatment technique requirements of this rule and shall issue tier 2 public notification in accordance with rule 3745-81-32 of the Administrative Code using the standard health effects language in paragraph (C) of rule 3745-90-06 of the Administrative Code.
- (D) Written treatment protocols and cyanotoxin general plans submitted under paragraphs (A) and (B) of this rule are not public records pursuant to section 149.433 of the Revised Code.

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