



Ohio Administrative Code

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

Effective: November 1, 2022

This rule applies to all public water systems receiving water from a surface water source except consecutive water systems.

(A) A public water system shall develop and submit to the director written treatment optimization protocols for harmful algal blooms. The protocols shall be in a form that is acceptable to the director and include detailed information on the public water system, water sources, existing treatment processes with schematic, and 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. treatment optimization protocols shall be submitted to the director in accordance with the following timelines:

(1) The treatment optimization protocols shall be submitted to the director within thirty days of the initial detection of microcystins in raw or finished water sampling points.

(2) If a public water system was not required to submit written treatment optimization protocols under paragraph (A)(1) of this rule, treatment optimization protocols shall be submitted to the director within six months of the effective date of this rule.

(3) New public water systems shall submit treatment optimization protocols within one year from activation unless otherwise required by paragraph (A)(1) of this rule.

(4) The treatment optimization protocols required by this chapter shall be reviewed and updated as necessary, but at least annually, and made available to Ohio EPA upon request.

(5) Treatment optimization protocols shall be submitted to the director for review within thirty days



of substantial change to the protocol or substantial change to treatment or source water as defined in 3745-91-01 of the Administrative Code.

(6) In the event the treatment optimization protocols are deemed inadequate or incomplete by Ohio EPA, the public water system shall revise the protocol in accordance with a schedule acceptable to the director.

(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 an approvable 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) The public water system shall respond to and address comments from Ohio EPA regarding the cyanotoxin general plan within thirty days of the comment date or other schedule provided by the director.

(3) Implement the approved cyanotoxin general plan in accordance with the approved schedule for substantial or required components of the plan.



(4) 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 (B)(3) 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.