3745-90-03 **Harmful algal blooms - monitoring.**

This rule applies to all surface water systems and consecutive water systems receiving water from a surface water source. Seasonal systems shall monitor in accordance with this rule during the system's operating season.

(A) Surface water systems.

(1) Cyanobacteria screening.

Surface water systems shall monitor with a minimum of one sample from each raw water sampling point at least once every two weeks for cyanobacteria screening. Cyanobacteria samples shall be collected at the same time as the routine microcystins sample.

(2) Routine microcystins monitoring.

(a) Routine microcystins monitoring requirements between May 1 and October 31.

Surface water systems shall monitor with a minimum of one sample from each raw water sampling point and one sample from each finished water sampling point at least weekly for microcystins analysis.

(b) Routine microcystins monitoring requirements between November 1 and April 30.

(i) Surface water systems shall continue to monitor in accordance with paragraph (A)(2)(a) of this rule unless microcystins are not detected in at least two consecutive weekly samples from both the raw water sampling point and the finished water sampling point, then the microcystins monitoring frequency is reduced to a minimum of one sample from each raw water sampling point at least once every two weeks.

(ii) If microcystins are detected at a raw water sampling point, weekly monitoring at that raw water sampling point and the finished water sampling point shall be conducted beginning no later than twenty-four hours following the detection. When microcystins are not detected in at least two consecutive weekly samples from both the raw water sampling point and the finished water sampling point, then monitoring once every two weeks may resume in accordance with paragraph (A)(2)(b)(i) of this rule.

(c) Increased routine microcystin monitoring (three days per week).

The frequency of monitoring at both raw water sampling points and finished water sampling points shall be increased to three days a week,

beginning no later than the following week, if microcystins exceed five micrograms per liter (ug/L) at the raw water sampling point, unless an alternate frequency has been established as part of the approved cyanotoxin general plan in accordance with rule 3745-90-05 of the Administrative Code.

Routine monitoring in accordance with paragraphs (A)(2)(a) and (A)(2)(b) of this rule may resume once the following occur:

(i) Microcystins concentrations are equal to or less than five ug/L in two consecutive samples from the raw water sampling point that are collected at least one day apart.

(ii) Microcystins concentration is non-detect at finished water sampling points.

(iii) If samples were collected at distribution sampling points in accordance with this rule, microcystins are not detected at any distribution sampling point.

(d) Increased routine microcystins monitoring (daily).

The frequency of monitoring at both raw water sampling points and finished water sampling points shall be increased to daily if microcystins are detected at finished water sampling points collected in accordance with this rule, or distribution sampling points collected in accordance with this rule. Daily monitoring shall include analysis within twenty-four hours of sample collection.

Routine monitoring may resume in accordance with paragraphs (A)(2)(a) and (A)(2)(b) of this rule if the two most recent consecutive daily samples from the raw water sampling point are equal to or less than five ug/L, or in accordance with paragraph (A)(2)(c) of this rule if either of the two most recent consecutive daily samples from the raw water sampling point are greater than five ug/L, once the following occur:

(i) Microcystins are not detected in two consecutive daily samples collected at the finished water sampling point.

(ii) If samples were collected at distribution sampling points in accordance with this rule, microcystins are below the action level at distribution sampling points.

(3) Revised cyanobacteria screening or routine microcystins monitoring frequency.

The cyanobacteria screening or routine microcystins monitoring frequency may be revised (decreased, increased or discontinued) at the discretion of the director. When establishing the revised schedule, the director may consider cyanobacteria screening data collected in accordance with this rule, microcystins data, and other information provided by the public water system including data from other screening tools (such as phycocyanin sensors or phytoplankton enumeration) and treatment information. Surface water systems shall monitor in accordance with the revised cyanobacteria screening or routine microcystins monitoring schedule established by the director.

(4) Response to microcystins action level exceedance.

If microcystins exceed an action level established in paragraphs (A)(1) or (A)(2) of rule 3745-90-02 of the Administrative Code in routine samples collected at the finished water sampling point, the public water system shall do the following:

(a) As soon as possible, but no later than twenty-four hours after receiving the results of the initial action level exceedance, collect one resample from each raw water sampling point and one resample from each finished water sampling point. Analysis of resamples must be completed within twenty-four hours of collection. These resamples satisfy the requirement for daily samples as set forth in paragraph (A)(2)(d) of this rule.

(b) Within twenty-four hours of collecting the resamples, collect one repeat sample from each raw water sampling point and one repeat sample from each finished water sampling point. Analysis of repeat samples must be completed within twenty-four hours of collection. These repeat samples satisfy the requirement for daily samples as set forth in paragraph (A)(2)(d) of this rule.

(c) If the microcystins concentration exceeds the action level in the resample or repeat sample collected at any finished water sampling point in accordance with paragraphs (A)(4)(a) or (A)(4)(b) of this rule, as soon as practical but no later than three hours after receiving the resample or repeat sample results, the surface water system shall notify all consecutive systems served by the water system. The surface water system with the action level exceedance, and all consecutive water systems served by the water system, shall within twenty-four hours of receiving the resample or repeat sample results, collect samples at representative distribution sampling points in accordance with the contingency plan required by rule 3745-85-01 of the Administrative Code. Additional distribution system monitoring may be required by the director based on sampling results and other relevant circumstances.

Analysis of distribution samples must be completed within twenty-four hours of collection.

(d) Conduct routine daily monitoring in accordance with paragraph (A)(2)(d) of this rule.

(B) Consecutive water systems receiving water from an in-state surface water system.

Within twenty-four hours of receiving notification of an action level exceedance in accordance with paragraph (A)(4)(c) or (C)(2)(c) of this rule, the consecutive water system shall collect samples at representative distribution sampling points in accordance with the contingency plan required by rule 3745-85-01 of the Administrative Code. Additional distribution system monitoring may be required by the director based on sampling results and other relevant circumstances. Analysis of distribution samples must be completed within twenty-four hours of collection.

(C) Consecutive water systems receiving water from an out-of-state surface water source.

(1) Routine microcystins monitoring.

(a) Routine microcystins monitoring requirements between May 1 and October 31.

Consecutive water systems receiving water from an out-of-state surface water source shall monitor with a minimum of one sample from each finished water sampling point at least weekly for microcystins analysis.

(b) Routine microcystins monitoring requirements between November 1 and April 30.

Consecutive water systems receiving water from an out-of-state surface water source shall monitor with a minimum of one sample from each finished water sampling point at least once every two weeks for microcystins analysis.

(c) Increased routine microcystins monitoring (daily).

The frequency of monitoring at finished water sampling points shall be increased to daily if microcystins are detected at finished water sampling points collected in accordance with this rule, or distribution sampling points collected in accordance with this rule. Daily monitoring shall include analysis within twenty-four hours of sample collection.

Routine monitoring may resume in accordance with paragraphs (C)(1)(a) or (C)(1)(b) of this rule once the following occur:

(i) Microcystins are not detected in two consecutive daily samples collected at the finished water sampling point.

(ii) If samples were collected at distribution sampling points in accordance with this rule, microcystins are below the action level at distribution sampling points.

(d) Revised routine microcystins monitoring frequency.

The routine microcystins monitoring frequency may be revised (decreased, increased or discontinued) at the discretion of the director. When establishing the revised schedule, the director may consider microcystins data, and other information provided by the public water system including data from screening tools (such as phycocyanin sensors or phytoplankton enumeration) and treatment information. Consecutive water systems shall monitor in accordance with the revised routine microcystins monitoring schedule established by the director.

(2) Response to microcystins action level exceedance.

If microcystins exceed an action level established in paragraphs (A)(1) or (A)(2) of rule 3745-90-02 of the Administrative Code in routine samples collected at the finished water sampling point, the public water system shall do the following:

(a) As soon as possible, but no later than twenty-four hours after receiving the results of the initial action level exceedance, collect one resample from each finished water sampling point. Analysis of resamples must be completed within twenty-four hours of collection. This resample satisfies the requirement for daily samples as set forth in paragraph (C)(1)(c) of this rule.

(b) Within twenty-four hours of collecting the resamples, collect one repeat sample from each finished water sampling point. Analysis of repeat samples must be completed within twenty-four hours of collection. This repeat sample satisfies the requirement for daily samples as set forth in paragraph (C)(1)(c) of this rule.

(c) If the microcystins concentration exceeds the action level in the resample or repeat sample collected at any finished water sampling point in accordance with paragraphs (C)(2)(a) or (C)(2)(b) of this rule, as soon as practical but no later than three hours after receiving the resample or repeat sample results, the public water system shall notify all consecutive systems served by the water system. The public water system with the action level exceedance, and all consecutive water systems served by the water system, shall within twenty-four hours of

receiving the resample or repeat sample results, collect samples at representative distribution sampling points in accordance with the contingency plan required by rule 3745-85-01 of the Administrative Code. Additional distribution system monitoring may be required by the director based on sampling results and other relevant circumstances. Analysis of distribution samples must be completed within twenty-four hours of collection.

(d) Conduct routine daily monitoring in accordance with paragraph (C)(1)(c) of this rule.

(D) Monitoring extension.

Upon a request from a public water system, the director may agree to extend the twenty-four hour monitoring requirement for daily, resample, repeat or distribution samples required pursuant to this rule on a case-by-case basis when the public water system has a logistical problem collecting samples within twenty-four hours or analyzing samples in accordance with the requirements of this chapter. When an extension is agreed to by the director, the director shall specify in writing how much time the public water system has to monitor. Examples of potential logistical problems include, but are not limited to:

(1) Extreme weather conditions create unsafe travel or on-site conditions for the person collecting the sample.

(2) Limited certified laboratory capacity on weekends and holidays.

(E) Violations.

Failure to comply with routine and distribution monitoring requirements in paragraphs (A)(1), (A)(2), (A)(3), (A)(4)(c), (B), (C)(1) or (C)(2)(c) of this rule is a monitoring violation and requires the public water system to provide Tier 3 public notification in accordance with rule 3745-81-32 of the Administrative Code. Failure to comply with resample and repeat sample requirements in paragraphs (A)(4)(a), (A)(4)(b), (C)(2)(a) or (C)(2)(b) of this rule is a monitoring violation and requires the public water system to provide a Tier 1 public notification accordance with rule 3745-81-32 of the Administrative Code.

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