



Division of Drinking and Ground Waters Response to Comments

Proposed Harmful Algal Blooms

- [3745-90-01 – Harmful Algal Blooms – Definitions]
- [3745-90-02 – Harmful Algal Blooms – Applicability and Action Levels]
- [3745-90-03 – Harmful Algal Blooms - Monitoring]
- [3745-90-04 – Harmful Algal Blooms – Analytical Methods and Reporting]
- [3745-90-05 – Harmful Algal Blooms – Treatment Techniques]
- [3745-90-06 – Harmful Algal Blooms - Tier 1 Public Notification and Consumer Confidence Reports]
- [3745-90-07 – Harmful Algal Blooms – Record Keeping]

Agency Contact for this Package

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Ohio EPA issued public notice and requested comments for the period of March 30th, 2022 to May 4th, 2022 on proposed rules in the Ohio Administrative Code (OAC). This document summarizes the comments and questions received during the comment period.

Ohio EPA reviewed and considered all comments received during the comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. The name of the commenter follows the comment in parentheses.

3745-90-01, [Harmful Algal Blooms - Definitions]

Comment 1: [Suggests clarifying the definitions of “resample” and “repeat”. The definitions specify collection at the “finished water sampling point” however 3745-90-03(A)(4)(a) and (A)(4)(b) refer to resample and repeat samples being collected at raw water and finished water sampling points] (Patricia Klonicki, Greater Cincinnati Water Works)

Response 1: [The definitions of “resample” and “repeat” states these are triggered by action level exceedances at the finished water sampling point. All details on monitoring requirements for “resample” and “repeat” samples are provided in 3745-90-03(A)(4)(a) and (A)(4)(b). No change to definition language necessary.]

3745-90-03, [Harmful Algal Blooms - Monitoring]

Comment 2: [The public comment for The City of Akron Watershed Division regarding the upcoming HAB rules (3745-90-01) was that in regard to 3745-90-03 (b), that utilities have the option to use qPCR screening in lieu of ELISA testing during HAB “off-seasons” explicitly stated in the rule. This would ensure that administrative changes don’t remove the choice for utilities who desire to use qPCR as a screening tool.] **(Charles Lacy, City of Akron Water Supply)**

Response 2: [Thank you for your comment. Ohio EPA has used the flexibility through section 3749-90-03 of the Harmful Algal Bloom monitoring rule and Ohio’s Harmful Algal Bloom Strategy for Public Water Systems (PWS) to offer reduced monitoring and flexibility with optional for sampling during Off-season. The proposed rule revisions retain the paragraph in 3749-90-03(1)(A)(3) of the rule that allows the director to revise monitoring. This paragraph will continue to allow for flexibility, which are outlined in the PWS HAB Response Strategy, in addition to the reduced monitoring codified in revised rule. Water systems are encouraged to monitor source waters to inform treatment.]

Comment 3: GCWW still has concerns about monitoring the finished water in the off season with ELISA method which research has shown should be used with caution at low concentration in treated water (Guo et al, published in JAWWA March 2017). Instead of monitoring finished water in the off season, GCWW suggests that OEPA consider continuing cyanobacteria screening of the raw water during the off season in conjunction with monitoring optimized treatment processes through the strengthened treatment optimization protocol requirements.
We again encourage the use of advanced analytical instrumentation like LC/MS/MS to confirm positive finished water detections. Research has shown that quantification with ELISA is semi-quantitative at best and particularly problematic at low concentrations in treated water.] **(Patricia Klonicki, Greater Cincinnati Water Works)**

Response 3: [Thank you for your comment. Please see response to Comment 3 above regarding cyanobacteria screening and monitoring flexibility during Off-season.

Ohio EPA has reviewed the analytical methodologies currently available for microcystins, including performing a comparative analysis and an evaluation of

potential interferences. Ohio EPA considers the ELISA-ADDA method as suitable for quantitative analysis. Aside from ELISA, the other analytical methods for microcystins detection are currently limited in their ability to measure all congeners, and therefore underreport total microcystins. The ELISA MC-ADDA kit is U.S. EPA ETV certified. Validation is part of the ETV certification process. In addition, U.S. Geological Survey selected the ELISA MC-ADDA kit for use in the National Lakes Assessment sample analysis after a comprehensive review of available ELISA kits and comparison of ELISA MC-ADDA and LC-MS/MS results. U.S. EPA has also included ELISA MC-ADDA as a monitoring tool for UCMR 4. While not explicitly stated in the proposed rules or strategy, Ohio EPA anticipates additional sampling and technical assistance would occur in response to finished drinking water exceedances and/or drinking water advisories.

Most U.S. EPA approved organic analytical methods for drinking water allow for acceptance limits for quality control standards of $\pm 50\%$ at or near the reporting limit and acceptance limits of $\pm 30\%$ near the midrange of the analytical method. Additionally, U.S. EPA method 544 for detection of 6 microcystin congeners allows for acceptance limits for quality control standards of $\pm 50\%$ at or near the reporting limit and acceptance limits of $\pm 40\%$ near the midrange. After completing accuracy and precision studies, Ohio EPA tightened accuracy and precision acceptance limits for quality control standards of the ELISA-ADDA method to $\pm 40\%$ (near reporting limit) and $\pm 25\%$ (midrange).]

End of Response to Comments