# TCEQ LogoNational Comments

# Executive Review Summary

**TCEQ Proposed Comments On:**

Request for Scientific Views; Draft Human Health Recreational Ambient Water Quality Criteria and/or Swimming Advisories for Microcystins and Cylindrospermopsin; Drafts for Public Comment; posted in Docket ID No. EPA-HQ-OW-2016-0715 of Regulations.gov.

**Overview of Proposal:**

**The EPA published draft** **nationally-recommended ambient water quality criteria and/or swimming advisories for microcystins and cylindrospermopsin to protect human health while recreating in freshwater. EPA is publishing these draft recommendations for states to consider for adoption as water quality standards in accordance with Section 303(c) of the Clean Water Act (CWA), or for use as swimming advisory values to implement in state recreational water advisory programs. The EPA published the draft recommendations on December 19, 2016 in accordance with Section 304(a)(1) of the CWA. The 60-day public comment period for the draft criteria and/or advisories began on December 19, 2016 and was extended for an additional 31 days, until March 20, 2017. EPA is seeking public comment on the proposed draft criteria and/or advisories, as well as additional scientific views, data and information regarding the technical approach used to develop the draft criteria and/or advisories.**

**The EPA’s proposed draft water quality criteria and/or advisories to protect recreational uses is as follows:**

* **When used as water quality criteria to be adopted into state water quality standards, the recommendations are:**
	+ **The concentrations of microcystins shall not exceed 4 ug/L more than 10 percent of the days in a recreational season (up to a year).**
	+ **The concentration of cylindrospermopsin shall not exceed 8 ug/L more than 10 percent of the days in a recreational season (up to a year).**
* **When used as swimming advisories to protect for short-term exposure scenarios, the recommendations are:**
	+ **The concentration of microcystins shall not exceed 4 ug/L in a day.**
	+ **The concentration of cylindrospermopsin shall not exceed 8 ug/L in a day.**

**Summary of Comments:**

Considerable uncertainty exists regarding how these criteria and/or advisories would be implemented in regulatory programs under the CWA, particularly since control of cyanotoxins may require the control of causal pollutants such as nutrients. The causal relationship between nutrients and production of cyanotoxins by cyanobacteria has not been well-established, and is very likely site-specific. Additional clarity, information, and guidance is needed to effectively incorporate these recommendations into state water quality management processes.

If TCEQ were to adopt the criteria published by EPA, it has the potential to affect the development of the Texas Surface Water Quality Standards (TSWQS), and implementation of the standards in monitoring, assessments, total maximum daily loads (TMDLs) and wastewater permitting. States must adopt water quality criteria that protect designated uses and, if appropriate, modify those criteria once every three years. The State of Texas has not adopted recreational criteria in the form of cyanotoxins into the TSWQS, Title 30 Texas Administrative Code (TAC), Chapter 307. Additionally, use of EPA’s recommendations as swimming advisories would require extensive coordination with agencies who are members of the Texas Toxic Substances Coordinating Committee (TSCC). This committee facilitates coordination among member agencies concerning each agency’s efforts to regulate toxic substances and harmful physical agents. State agencies who are members of the TSCC include: Texas Commission on Environmental Quality, Texas Department of State Health Services, Texas Parks and Wildlife, Texas Department of Agriculture, and the Texas Railroad Commission. Additional clarity and implementation guidance is needed to assist state natural resource and public health agencies when considering the recommended values as water quality standards or action levels to issue swimming advisories, particularly due to the need for agency cross-coordination and public notice regarding toxic substances and the protection of public health.

Comments on the draft criteria and/or advisories address the following concerns:

* EPA is requested to correct the status of state recreational water guidelines for cyanotoxins and cyanobacteria in Texas. The information presented for Texas in various portions of Section 2.0 Introduction and Background and Appendix B of EPA’s Draft *Human Health Recreational Ambient Water Quality Criteria or Swimming Advisories for Microcystins and Cylindrospermopsin* is incorrect. The TCEQ is not currently aware of any statewide recreational water guidelines for cyanotoxins and cyanobacteria for use in swimming advisory programs.
* EPA should clarify the type of cyanotoxins applicable to the draft recommendations. Additional clarity is needed to determine if recommendations apply to “total” microcystin or cylindrospermopsin, any of the known congeners, or if congeners may be used as surrogates for total toxins.
* EPA should reconsider the duration of recreational exposure value of 2.7 hours per day, used to develop the draft criteria and/or advisories. This value was derived from a study that included a small sample size of swimmers. A more reasonable exposure duration of 1.3 hours, based on a larger sample size of swimmers from a peer-reviewed study cited in EPA’s draft document, is recommended by TCEQ.
* EPA should reconsider the relative source contribution (RSC) of 0.8, used to develop the draft criteria and/or advisories. The use of an RSC of anything less than 1 in the draft criteria cannot be justified because there is not information to suggest that there is any significant exposure to microcystins and/or cylindrospermopsin via other routes of exposure, such as dermal exposure, inhalation, ingestion of fish/shellfish, or drinking water.
* EPA should incorporate results of the 2012 National Lakes Assessment (NLA) into the draft recommendations. The draft criteria and/or advisories include pertinent results from the 2007 NLA only. EPA should update the criteria and/or advisories with results from the 2012 NLA, which was recently published in the December 8, 2016 edition of the Federal Register.
* EPA should provide implementation guidance to accompany the draft criteria and/or advisories. Additional guidance is needed to implement these criteria, particularly for the purposes of swimming advisories, and in water quality management programs such as monitoring, assessment, TMDL development, and wastewater permitting.
* The availability and acceptability of analytical methods to determine microcystin and cylindrospermopsin in water needs to be described and provided as part of the criteria and/or advisories, or in future implementation guidance. EPA should provide additional detail and clarity regarding methods and modifications of analytical methods, particularly since EPA does not have approved methods under 40 Code of Federal Regulations Section 136 for determining microcystin or cylindrospermopsin in water.

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**Deputy Director Approval: L’**Oreal W. Stepney, P.E.

**Deadline**: March 20, 2017