

Public Notification Guidance for Cyanotoxins in Finished Water

1. A public water system detects cyanotoxins above an Environmental Protection Agency's Health Advisory (HA) level, or a New Jersey specific guidance level (if the system can detect to these numbers), (see Table 1 below) in a routine finished water sample in accordance with their Cyanotoxin Management Plan (CMP) or in response to a harmful algal bloom (HAB) identified in the system's water source area or at/near their intake.
 - a. Systems must notify the Division of Water Supply and Geoscience (DWSG) by telephone at 609-292-2957 during business hours, or (877)-WARN-DEP during non-business hours, of any exceedances of cyanotoxins in the finished water within 6 hours in accordance with N.J.A.C. 7:10-2.4(b).
 - b. If cyanotoxins are confirmed above a HA in finished water, there can be situations where the Department may require a Tier 1 Public Notice as it falls under the criteria for issuing Tier 1 Public Notification in accordance with 40 CFR 141.202(a).
2. Sampling to determine if public notification for cyanotoxins is needed:
 - a. Two Sets of Repeat Samples
 - i. Within 24 hours of being notified of an initial finished water sample result above one of the cyanotoxin HAs, collect two sets of repeat samples separated by at least 1-hour apart following any treatment adjustments/changes made by the system.
 - ii. Each sample set will consist of two samples to be collected at the same time: one sample from the raw water sampling point and one from the entry point to the distribution system (EPTDS) sampling point.
 - iii. The sampling in 2.a.i should be completed as soon as possible, but no later than 24 hours after notification of the initial finished water exceedance.
 - iv. If either of the EPTDS samples are above a cyanotoxin HA, then a public notice should be issued as soon as possible, but no later than 24 hours of being aware of the repeat exceedance.
 - v. The raw water samples will not be used in the public notification determination, but instead as information to help the system gauge the effectiveness of their treatment and what levels of toxins are entering the treatment plant at that time.
 - vi. Templates for cyanotoxin exceedances in finished water have been developed by the DWSG for water systems to utilize and can be found at (<https://www.state.nj.us/dep/watersupply/hab.html>). Water systems may reach out to the DWSG for assistance/guidance on completing this template.
 - b. Initial Finished Water Sample Significantly Above HA
 - i. If an initial finished water sample has a result significantly above a cyanotoxin HA, then the water system can consult with the DWSG as soon as possible to determine if immediate public notification may be necessary without the collection of repeat samples.
3. If public notification is not triggered under Section #2, then no further action is necessary. Systems should continue the monitoring schedule in accordance with their CMP.
4. When public notification has been determined to be necessary, the water system must follow these notification requirements:
 - a. If applicable, notify consecutive systems of the exceedance within 6 hours.
 - b. In accordance with, N.J.S.A. 58:12A-8.2 notify local municipal officials served by your water system within one hour that the notice has been decided to be issued.
 - c. Customer public notification must be issued within 24 hours using a minimum of one of the methods outlined below:
 - Hand delivery to all persons served (if mailed, a second method should also be used)
 - Posting of notice in conspicuous locations throughout service area

- Appropriate broadcast media
 - Other (consult with DWSG)
 - d. Direct notification to sensitive populations, including schools, childcare facilities, senior living centers, hospitals, and other medical facilities. County and local health departments should also be notified and informed of the service area(s) affected.
5. Before proceeding to Section #6 below and collecting samples to lift the public notice, the system should ensure corrective actions have been taken to reduce cyanotoxin concentrations in the finished water below the HAs (i.e., adjusted treatment) (or guidance levels if able to test to those values) and/or the HAB has subsided and the levels in the raw water have decreased.
6. Lifting of the Public Notice
- a. Collect two sets of repeat samples (same as in Section #2) a minimum of 1-hour apart.
 - b. If either EPTDS sample is above a HA (or guidance levels if able to test to those values), public notification should not be lifted, and the water system should instead continue to work towards reducing cyanotoxin concentrations in finished water.
 - c. If both EPTDS samples are below the HAs (or guidance levels if able to test to those values), then the public notice can be lifted by the water system if they deem it appropriate.

Table 1. *Draft NJDEP Guidance Levels and EPA Health Advisories for Cyanotoxins

		Draft NJDEP DSR Guidance Levels		EPA Health Advisory		NJDEP DWMS Recreational
	Ingestion Rate (L/kg/day)	Reference Dose (ug/kg/day)	Guidance Value (ug/L)	Reference Dose (ug/kg/day)	Health Advisory (ug/L)	Health Advisory (ug/L)
Microcystins						
≤ 6 years old	0.15	0.01	0.07	0.05	0.3	2
> 6 years old	0.03	0.01	0.3	0.05	1.6	
Cylindrospermopsin						
≤ 6 years old	0.15	0.03	0.2	0.1	0.7	5
> 6 years old	0.03	0.03	1	0.1	0.3	
Anatoxin-a						
≤ 6 years old	0.15	0.1	0.7	-	-	15
> 6 years old	0.03	0.1	3.3	-	-	
Saxitoxin						
≤ 6 years old	0.15	0.0037	0.025	-	-	0.6
> 6 years old	0.034	0.0037	0.11	-	-	

*These guidance levels are draft until the point that more feasible testing is available