



Current Water Treatment and Distribution System Optimization for Cyanotoxins

Tuesday, May 26, 2015
2:00 to 3:00 pm EST

Treatment strategies to remove algal toxins from drinking water

Public water systems are encouraged to take an integrated approach to address potential algal toxin health concerns in drinking water, which includes source water control, monitoring, treatment, and communication. This presentation will focus on treatment strategies being adopted or considered by water treatment plants to remove algal toxins while meeting other treatment goals. The presentation will also discuss on-going efforts at the Office of Water to help states and public water systems implement the algal toxin Health Advisories.

Presented by Lili Wang, P.E. – EPA's Office of Water. Lili Wang is an environmental engineer with EPA's Office of Ground Water and Drinking Water, Standards and Risk Reduction Branch. She joined EPA in 2011 to work on regulatory determination, the Six-Year Review of Microbial/Disinfection Byproducts Rules, the fluoride rule, and microbial and cyanotoxin water treatment issues. Lili came to EPA with 15 years of prior experience with environmental consulting firms providing research and development support to EPA, the U.S. Navy, and international clients on water treatment and contaminated site remediation. Lili is a registered professional engineer in Ohio.

Removal of cyanobacteria and cyanotoxins through drinking water treatment

This presentation will cover the control of intact cyanobacterial cells through particulate removal processes such as coagulation, sedimentation and filtration. The control of cyanobacterial toxins through oxidation and adsorption processes including, but not limited to, chlorine, ozone, and granular activated carbon will also be discussed. Finally, a case study based on data collected from multiple treatment facilities during EPA's Office of Research and Development Lake Erie treatment plant sampling program will be presented. The study includes the examination of chlorophyll and toxin data to track the propagation of cells and their associated toxins through several treatment plants.

Presented by Nicholas Dugan, P.E. – EPA's Office of Research and Development. Nick is an environmental engineer with EPA's Office of Research and Development, National Risk Management Research Laboratory, Water Supply and Water Resources Division, Treatment Technology Evaluation Branch. In addition to Office of Research and Development's Lake Erie treatment plant sampling program, he has performed or supervised bench- and pilot-scale treatment studies to evaluate the control of cyanobacteria, cyanobacteria toxins, *cryptosporidium*, pesticides, pharmaceuticals, nitrates, perchlorate, ammonia, and disinfection byproduct precursors through a variety of drinking water treatment processes. Nick is a member of the American Water Works Association and is registered as a professional engineer in Ohio.

A certificate for one continuing education contact hour will be offered for this webinar

Webinar Registration: <https://attendee.gotowebinar.com/register/5621308538750173697>

Who should attend?

State primacy agencies, tribes, community planners, technical assistance providers, academia, and water systems interested in issues facing community water systems and solutions to help solve them.

In 2015, EPA's Office of Research and Development and Office of Water will host monthly webinars to discuss challenges and treatment solutions for small drinking water and wastewater systems.



EPA 2015 Monthly Webinar Series: Challenges and Treatment Solutions for Small Drinking Water and Wastewater Systems

All webinars will take place from
2:00 to 3:00 pm EST

January 27	Arsenic Treatment Technologies (COMPLETE)
February 24	Innovative Biological Treatment for Small Water Systems: Ammonia, Nitrites, and Nitrates (COMPLETE)
March 31	Small Water System Alternatives: Media and Membrane Filtration for Small Communities and Households (COMPLETE)
April 28	Understanding End Water Quality in Hospitals and Other Large Buildings (COMPLETE)
May 26	Current Water Treatment and Distribution System Optimization for Cyanotoxins
June 30	Biological and Microbial Aspects of Septic System Pollution
July 28	Corrosion Control for Drinking Water Systems
August 25	Distribution Operation Options for Small Systems to Address DBPs
September 29	UV Disinfections Systems – Treatment of Groundwater for Small/Medium Sized Water Utilities
October 27	Decentralized High-Rate Wastewater Treatment of Peak Wet Weather Flows
November 24	Treatability Databases, Cost Models, and Other Tools for Water Systems
December 15	Reduction of Lead in Drinking Water

New!

Upcoming webinar registration and past webinar recordings:

<http://www2.epa.gov/water-research/2015-small-systems-webinar-series>

(Certificates of completion cannot be given for viewing webinar recordings.)