**US EPA ORD-Region 4 Small Drinking Water Systems Meeting**

**Agenda**

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| **October 14, 2020 (Eastern Time)** | |
| 12:30 PM | **Participant Gathering and Prep Time**  Please plan to join beginning at 12:15 PM to get yourself set up, test your sound quality, and troubleshoot any technical issues. You may then go on hold until we are ready to begin. |
| 12:45 PM | **Icebreaker Exercise: Introductions & Interacting with the GoToMeeting webinar – All**  Objective: Guide members through the GoToMeeting webinar features through a set of brief exercises to ensure everyone can participate during the meeting both in real time and via chat. |
| 1:00 PM | **Welcome and Opening Remarks** ***Day 1 Facilitator:*** *Janine Morris, EPA Region 4*  *Jeaneanne Gettle, Director, Water Division, EPA Region 4*  *Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science, EPA Office of Research and Development (ORD)*  *Sheila Holman, Assistant Secretary for the Environment, North Carolina Department of Environmental Quality* |
| 1:15 PM | **Session 1: Issues, Challenges and Science Needs of Small Drinking Water Systems: Perspectives from States & Utilities**  Panel: State and utility perspectives and discuss pre-meeting feedback on small system challenges  ***Moderator:*** *Alan Roberson, Association of State Drinking Water Administrators (ASDWA)*  ***Panelists****: David Money, Tennessee Department of Environment and Conservation (TDEC); Kenneth Herring, Adams County Water Association (MS); Ron Medders, Utilities, Inc. of Georgia (GA)* |
| 2:00 PM | Session 2: Safe Drinking Water Updates  *Sarah Bradbury, EPA Office of Ground Water and Drinking Water (OGWDW)* |
| 2:30 PM | **Break** |
| 2:45 PM | Session 3: Collecting Accurate Disinfectant Residual Measurements  *Matthew Alexander, EPA OGWDW* |
| 3:15 PM | **Session 4: Lead Corrosion Control Chemistry**  *Simoni Triantafyllidou, EPA ORD* |
| 3:45 PM | **Q&A Session (All)** |
| 4:15 PM | **Adjourn** |
| **October 15, 2020 (Eastern Time)** | |
| 12:30 PM | **Participant Gathering and Prep Time**  Please plan to join at 12:30 PM to get yourself set up, test your sound quality, and troubleshoot any technical issues. |
| 12:55 PM | **Recap/Welcome to Day 2**  ***Day 2 Facilitator:*** *Jeannie Williamson, EPA Region 4*  *Shawneille Campbell-Dunbar, Drinking Water Section Chief, EPA Region 4* |
| 1:00 PM | **Session 5:** **South Carolina’s Approach to Revised Total Coliform Rule Assessments**  *Richard Welch, South Carolina Department of Health and Environmental Control* |
| 1:30 PM | **Session 6: Iron and Manganese Control in Ground Water Systems**  *Asher Keithley, EPA ORD* |
| 2:00 PM | **Session 7: Tools for Achieving Simultaneous Compliance**  *Mike Finn, EPA OGWDW* |
| 2:30 PM | **Break** |
| 3:00 PM | Session 8: An Overview of PFAS within Region 4 and Treatment Options  *Renea Hall, EPA Region 4 and Thomas Speth, EPA ORD* |
| 3:45 PM | **Session 9: Outreach & Training Opportunities**  *Michelle Latham, EPA ORD; Alan Roberson, ASDWA; Randy Turnage, Mississippi Rural Water Association* |
| 4:00 PM | **Session 10: Meeting Wrap Up – Interactive Session (All)**  Wrap up comments/questions with panel of EPA, state and utility representatives  ***Moderator****: Alan Roberson, ASDWA*  ***Panelists****: Shawneille Campbell-Dunbar, EPA Region 4; Regan Murray, EPA ORD;*  *David Money, Tennessee Department of Environment and Conservation (TDEC); Kenneth Herring, Adams County Water Association (MS); Ron Medders, Utilities, Inc. of Georgia (GA)* |
| 4:30 PM | **Adjourn** |

**Agenda Topic Descriptions**

**Session 1: Issues, Challenges and Science Needs of Small Drinking Water Systems: Perspectives from States & Utilities**

*Moderator: Alan Roberson, Association of State Drinking Water Administrators (ASDWA)*

*Panelists: David Money, Tennessee Department of Environment and Conservation (TDEC); Kenneth Herring, Adams County Water Association (MS); Ron Medders, Utilities, Inc. of Georgia (GA)*

This panel of state, local and utility representatives will share their perspectives on the most pressing environmental challenges facing their water systems and related science needs. Discussion will include the pre-meeting feedback on small system challenges.

**Session 2: Safe Drinking Water Updates**

*Sarah Bradbury, EPA Office of Ground Water and Drinking Water (OGWDW)*

This presentation will provide a high-level overview of EPA’s work on various regulatory efforts, including the Lead and Copper Rule Revision, the Ground Water Rule, and Stage 2 Disinfection Byproducts Rule. The America’s Water Infrastructure Act of 2018 (AWIA) included many provisions related to drinking water. Speaker will highlight several of EPA Office of Ground Water and Drinking Water’s efforts, including the Water System Restructuring Rule, grant funding for lead testing in school and childcare facilities, and assistance for small and disadvantaged communities.

**Session 3: Collecting Accurate Disinfectant Residual Measurements**

*Matthew Alexander, EPA OGWDW*

Maintaining adequate disinfectant residual throughout the distribution system is essential to assure public health protection. Collecting reliable disinfectant residual data is necessary to ensure that the disinfectant barrier is in place. This presentation will describe how to develop a monitoring plan that is representative of the overall distribution system, collect samples to accurately characterize water quality, and understand common interferences associated with commonly used field methods.

**Session 4: Lead Corrosion Control Chemistry**

*Simoni Triantafyllidou, EPA ORD*

Corrosion and solubility are two distinct district concepts that control lead release from legacy lead pipe, leaded solder and leaded brass into drinking water. Key water quality parameters such as pH, alkalinity, dissolved inorganic carbon, disinfectants and corrosion inhibitors interact with leaded plumbing in ways that are not always fully understood. This presentation will provide the basic principles of lead corrosion and solubility, with emphasis on improving our practical understanding based on ORD technical support efforts.

**Session 5: South Carolina’s Approach to Revised Total Coliform Rule Assessments**

*Richard Welch, South Carolina Department of Health and Environmental Control (DHEC)*

EPA’s Revised Total Coliform Rule (RTCR) establishes a maximum contaminant level (MCL) for *E. coli* and uses *E. coli* and total coliforms to initiate a "find and fix" approach to address fecal contamination that could enter into the distribution system. Speaker will discuss how SC DHEC is dealing with the challenges of "find and fix.”

**Session 6: Iron and Manganese Control in Ground Water Systems**

*Asher Keithley, EPA ORD*

Iron and manganese are naturally occurring elements commonly found in groundwater. Iron and manganese have non-enforceable secondary maximum contaminant levels of 0.3 mg/L and 0.05 mg/L, respectively, based on aesthetic issues. Additionally, some states have established health-based standards for manganese because of its possible neurotoxic effects. In the distribution system, iron and manganese may precipitate and impact corrosion control practices and reduce the available flow. At the consumer tap, they can cause metallic taste, discoloration and staining, leading to customer complaints. Common treatment techniques include chemical or biological oxidation and physical separation of the oxidized precipitates for removal. This presentation will discuss physical-chemical and biological treatment options and will highlight important design considerations and operating parameters learned from multiple pilot- and full-scale studies conducted at small systems.

**Session 7: Tools for Achieving Simultaneous Compliance**

*Mike Finn, EPA OGWDW*

The National Primary Drinking Water Regulations (NPDWR) are legally enforceable primary standards and treatment techniques that apply to public water systems. Primary standards and treatment techniques protect public health by limiting the levels of contaminants in drinking water. This presentation will cover simultaneous compliance concerns with the NPDWR. The focus will be on considerations needed when a public water system is considering treatment or other changes for compliance with a NPDWR that may result in challenges meeting other NPDWR.

**Session 8: An Overview of PFAS within Region 4 and Treatment Options**

*Renea Hall, EPA Region 4 and Thomas Speth, EPA ORD*

This presentation will provide PFAS Action Plan updates; details on the technical assistance that EPA Region 4 has provided to states to detect, remove and treat PFAS in water; and an overview of regional projects implemented by state programs to support drinking water protection efforts related to PFAS contaminants. We will provide an overview of EPA research on drinking water and wastewater treatment and cover ORD resources and capabilities that can assist regions and states. It is recognized that removing PFAS from drinking water can be an expensive proposition. It is currently known that three treatment processes can be effective for PFAS removal: granular activated carbon, ion exchange resins, and high-pressure membrane systems. The optimal choice between these technologies is a balance between many factors such as water quality, PFAS to be removed, level of removal, capital cost, operating costs, operational complexity, footprint of the system, residual handling, and desire to avoid unintended consequences to other aspects of the treatment and distribution of the water. In addition, even with the choice of the optimal technology, the design of the system will impact its effectiveness. Specific examples will include ORD modeling support supplied to the cities of Wilmington, NC and Summersville, GA, along with how similar support is available for other communities.

**Session 9: Outreach & Training Opportunities**

*Michelle Latham, EPA ORD; Alan Roberson, ASDWA; Randy Turnage, Mississippi Rural Water Association*

Information on upcoming training opportunities for primacy agency staff and water system operators will be provided. Collaboration opportunities will also be discussed, including a workgroup that focuses on the different communication needs of small system operators and alternative approaches to facilitate outreach.