

CONTINUING EDUCATION FOR OPERATORS- FALMOUTH

Falmouth City Hall

230 Main Street

Falmouth, KY, 41040

Presented by

Kentucky Rural Water Association

May 5-6, 2026

All times Eastern Daylight Time

Tuesday, May 5, 2026

WW-6hrs

8:00am – 9:00am

Cyber Security

Jason Pennell, Kentucky Rural Water Association

Core Content: H5 – Emergency Response Planning & Security Training

(WW-1 hr)

This session provides a comprehensive introduction to cybersecurity fundamentals tailored specifically to water and wastewater utility operations. Operators will explore common cyber threats such as phishing, ransomware, and unauthorized system access, with a focus on how these risks impact SCADA and other operational technology systems. The session emphasizes the operator's role in safeguarding critical infrastructure through practical actions such as recognizing vulnerabilities, following secure access protocols, and properly reporting suspicious activity. Attendees will also gain insight into how cybersecurity ties directly into regulatory expectations, emergency response planning, and maintaining uninterrupted system operations.

9:00am-10:00am

Lab Basics

Arianna Lageman, Kentucky Rural Water Association

Core Content: D16-Sampling Analysis

(WW-1 hr)

This session delivers a detailed review of laboratory fundamentals critical to maintaining regulatory compliance and data integrity. Operators will learn proper sampling techniques, including correct collection methods, preservation standards, and handling procedures to prevent contamination or data inaccuracies. The session also covers NPDES permitting requirements and reinforces the importance of maintaining a clear and defensible chain of custody. Additional focus is placed on documentation practices, legal considerations, and how accurate lab work supports both compliance efforts and environmental protection.

10:00am-11:00am

Emerging Contaminants

Arianna Lageman, Kentucky Rural Water Association

Core Content: H25 Surface Water/Groundwater/Watershed Protection

(WW-1 hr)

This session explores the growing concern of emerging contaminants in water and wastewater systems, including PFAS, pharmaceuticals, personal care products, and microplastics. Operators will gain a deeper understanding of where these contaminants originate, how they behave in the environment, and the challenges they present for treatment processes. The session also introduces current monitoring techniques and evolving treatment technologies, helping operators stay informed on industry trends and prepare for future regulatory considerations related to water quality and environmental protection.

11:00am-12:00pm

Lunch

12:00pm – 1:00 pm Disaster Response
Jeff Rayford, Kentucky Rural Water Association

Core Content: H5 – Emergency Response Planning & Security Training
(WW 1-hr)

This session focuses on preparing operators to effectively respond to system disruptions and emergency situations. Participants will learn how to implement sustainable practices that enhance system resilience, including proactive planning, infrastructure protection, and maintaining operational continuity during adverse events. Emphasis is placed on integrating emergency response into daily operations, improving communication during incidents, and ensuring compliance requirements are still met under challenging conditions.

1:00 pm –2:00 pm Operator Roles and Responsibilities
Jason Pennell, Kentucky Rural Water Association

Core Content: H16-Private Property Issues//Right-of-Way/Service Laterals H17- Problem Solving/Troubleshooting/Decision Making

This session provides an in-depth look at the essential responsibilities of wastewater operators in maintaining safe, efficient, and compliant systems. Topics include regulatory requirements, system monitoring, accurate recordkeeping, and reporting expectations. Operators will also explore best practices for troubleshooting issues, making informed operational decisions, and maintaining safety standards. The session reinforces the critical role operators play in protecting public health, ensuring environmental compliance, and sustaining reliable wastewater treatment operations.

2:00pm-3:00 pm Operator Certification
George Haynes Kentucky Rural Water Association

Core Content: H18 – Regs (CWA/SDWA, State & Local such as Operator Certification Requirements), NPDES Permit Requirements, Compliance
(WW-1 hr)

This session offers a detailed overview of the Kentucky Operator Certification Program. Participants will learn the requirements for obtaining certification, including eligibility and testing processes, as well as the ongoing responsibilities required to maintain certification. The session also highlights the connection between certification, regulatory compliance, and professional accountability, helping operators understand how their credentials directly support system performance and adherence to state and federal regulations.

Wednesday, May 6, 2026

WW- 6hrs

8:00am – 9:00am Energy Efficiency
Jason Pennell, Kentucky Rural Water Association

Core Content: H6- Energy Efficiency/Energy Conservation at W/WW Facilities
(WW-1 hr)

This session examines how energy is consumed across water and wastewater systems and identifies opportunities for improved efficiency. Operators will learn to recognize common sources of energy loss and apply practical strategies to optimize performance in pumps, motors, aeration systems, and overall plant operations. Emphasis is placed on operator-level actions that can reduce operational costs, improve system reliability, and support environmental stewardship, all while aligning with regulatory expectations and industry best practices.

9:00am-11:00am

Asset Management

George Haynes, Jason Pennell, Jeff Rayford Kentucky Rural Water Association

Core Content: H15 Plant Optimization: Continue Process Improvement/Sustainability/Asset Management/Statistical Process Control Techniques (WW 2-hr)

This session introduces the foundational principles of asset management for water and wastewater systems. Operators will learn how to identify and prioritize critical assets, understand lifecycle costs, and begin shifting from reactive to proactive maintenance strategies. The session also explores how asset management supports regulatory compliance, improves system reliability, and enhances overall operational efficiency through better planning and decision-making.

11:00am-12:00pm

Lunch

12:00pm – 3:00pm

Asset Management

George Haynes, Jason Pennell, Jeff Rayford Kentucky Rural Water Association

Core Content: H15 Plant Optimization: Continue Process Improvement/Sustainability/Asset Management/Statistical Process Control Techniques (WW 3-hr)

This session builds on Part 1 by diving deeper into advanced asset management strategies and real-world application. Operators will explore process improvement techniques, including statistical process control concepts and performance tracking. Emphasis is placed on implementing sustainable practices, incorporating resiliency planning, and using data to drive operational decisions. By the end of this session, participants will have a clearer understanding of how to apply asset management principles to extend infrastructure life, reduce risk, and support long-term system sustainability.

SPEAKER BIOS

Jason Pennell joined Kentucky Rural Water Association staff in August 2017, with the Energy Efficiency Program and currently works as Education Coordinator. Jason's experience in the water and wastewater business began in Whitesburg, KY (Veolia Water) in 2005. There he worked as a meter reader, water and wastewater treatment plant operator, laboratory manager, chief operator and from 2012-2014 he served as the Operation Manager. From 2014-2017 Jason was a Utility and Regulatory Investigator for the Kentucky Public Service Commission. He holds Kentucky certifications/licenses as follows: Class IIIA Water Treatment Operator, Class II Water Distribution Operator, Class II Wastewater Treatment Operator, Class II Collection System Operator, is certified in Pipeline and Manhole Assessment by NASSCO and a Utility Management Certification from National Rural Water Association.

Arianna Lageman joined the Kentucky Rural Water Association (KRWA) staff as a Compliance Specialist in July, 2016. Prior to working for KRWA, Arianna worked most recently as the Lexington Laboratory Manager for McCoy & McCoy Laboratories, Inc. She has also worked for the Kentucky Division of Water as an auditor in the Laboratory Certification program and as a Compliance Manager for the Drinking Water Compliance and Technical Assistance Branch. Arianna earned a Bachelor of Arts in Spanish Language and Literature from Hanover College as well as a Bachelor of Science in Geology from Northern Kentucky University. She concentrated on hydrogeology and coastal processes while working on a Master of Science in Geology at East Carolina University. As a Compliance Specialist, Arianna focuses on providing KRWA members assistance through the Compliance Check Program and through various training opportunities.

George Haynes II was born in Vicksburg, MS. George attended Tennessee State University, University of South Florida and graduated from the University of Mississippi (Ole Miss) with a degree in General Engineering. He has been involved in the environmental field for 21 years. George has worked for small and large companies in the private sector such as Caterpillar, Ergon Oil Refining, Process Engineering Company and Bluegrass Plating. In addition to the private sector, George has served in state government as an engineer and a trainer for wastewater and drinking water for the Division of Compliance Assistance. Upon leaving state government George taught environmental science, water, wastewater, and other water related courses at Florida Gateway College. George served as the Pollution Prevention Control Coordinator for JEA, The fifth largest utility in the country.

Jeff Rayford joined the Kentucky Rural Water (KRWA) staff as the Disaster Recovery Circuit Rider in October, 2025. In this position, he provides support to communities in strengthening resilience, restoring critical water services, and navigating post-disaster recovery efforts. Jeff is an accomplished environmental services leader and U.S. Navy Seabee veteran with more than two decades of expertise in water systems management, stormwater compliance, wastewater operations, and public infrastructure. He brings a proven record of excellence in water distribution maintenance, advanced metering systems, sewer inspection programs, lift-station operations, and construction compliance for both municipal and regional agencies.