

#2823

Membrane Filtration for Water & Wastewater Treatment

6 WATER AND WASTEWATER CONTACT HOURS

This workshop is designed as an introduction to membrane filtration for public water and wastewater treatment systems in Pennsylvania. Membrane filtration is a useful mechanism for the treatment of public drinking water and wastewater and this class introduces students to membrane filtration types, principles of operation, components, applications, pros and cons, and case studies. This class will help system operators make informed decisions about membrane filtration at their own plants.

MEET THE INSTRUCTOR



Travis Long
JHA Companies

Travis Long is a Senior Project Leader for JHA Companies. He is a graduate of Juniata College and has 19 years experience in the planning, design, construction management and operations of water and wastewater treatment facilities and pilot units. He is a certified water and wastewater operator and has worked with and conducted extensive evaluations and testing in over 200 water and wastewater facilities throughout Pennsylvania, New York, Ohio and West Virginia. Travis is active in numerous environmental, water and wastewater related organizations.

May 13, 2020

**Middlesex Township
Municipal Authority**
350 North Middlesex Road
Carlisle, PA 17013
Cumberland County

Class Time: 8:00 am - 3:30 pm
Registration: 7:30 am

*Lunch and materials provided with
your training class registration*

THE PRWA PROMISE

If you're not 100% satisfied with the training class for any reason, we will give you a refund!

WWW.PRWA.COM/PROMISE

Method 334.0

Is it time for your instruments Routine Calibration Verification?

In September 2009, the Environmental Protection Agency (EPA) published Method 334.0. In 2018, the Pennsylvania Department of Environmental Protection (DEP) required compliance of Method 334.0. Specifically, Pennsylvania drinking water systems are expected to follow Method 334.0 if they use a handheld, benchtop or on-line chlorine analyzer for any of the following:

- compliance monitoring at both the entry point and in the distribution system;
- monitoring used to obtain results for calculating log inactivation;
- or chlorine monitoring required as part of a permit condition.

In short, all community water systems and any noncommunity water system with surface water or 4-log treatment are required to follow Method 334.0.

To verify on-line analyzers and become Method 334.0 compliant systems must complete:

- The field sampler initial demonstration of capability. This is required for any individual who conducts chlorine analysis at the water system.
- The initial calibration verification is required for any handheld or benchtop analyzer used for chlorine analysis or used for comparison grab sampling within Method 334.0.
- Routine calibration verifications are required quarterly (at least every 90 days) for any handheld or benchtop analyzer used for chlorine analysis or used for comparison grab sampling within Method 334.0.

Many systems have done initial demonstration of capability for individuals who conduct chlorine analysis and have completed initial calibration verifications. To maintain Method 334.0 compliance, systems must complete Routine Calibration Verifications.

PRWA will have staff at this training seminar to perform Routine Calibration Verifications for participating systems instruments.

Operators can choose to attend only the seminar, attend the seminar and have equipment verified, or just have the equipment verified.

In addition to the instrument in need of routine calibration verification, paperwork specific to method 334.0 will be needed including:

- Initial calibration verification
- And, if completed at any time, quarterly instrument verification

In addition to the instrument(s) to be verified, the PRWA staff will need clean sample glassware. Additionally, if the instrument cannot be verified using a DPD pillow packet, the specific chemical/reagent needed should be provided.

Cost:
\$39 per Instrument

Questions?

Call (800) 653-7792 ext. 107 or 108
Or email: Training@PRWA.com

Registration Form

May 13, 2020

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Please select an option:

- Training Class Only
- Method 334.0 Quarterly Verification Only
- Both Training Class & Method 334.0 Quarterly Verification

Location:

Middlesex Township Municipal Authority
350 North Middlesex Road, Carlisle, PA 17013
Cumberland County

Number of Instrument(s): _____

\$39 per instrument

**In addition to clean sample vial, do not forget to bring Initial Calibration Verification & Routine Calibration Verification paperwork for each instrument to be verified.*

Name: _____

PA DEP Client ID (if applicable): _____

System/Co.: _____

Phone: () _____ Fax: () _____

Address: Home System _____

City: _____ State: _____ Zip: _____

PAYMENT:

Check (payable to PRWA)

Invoice Me: Home System

Credit Card: AmEx Discover Visa MasterCard

Card Number _____

Exp Date (mm/yy): _____ CVC (3 or 4 Digit # on card): _____

Card Billing Zipcode: _____

Name on Card (Please print): _____

Signature: _____

PRWA Member? Yes No

Attendance cost per person:

\$95 for PRWA Members
\$130 for Non-Members

\$39 for Instrument Verification
(per instrument)

Amount Due:

\$ _____

For the most up to date information,
check out **WWW.PRWA.COM**

Also, find us on social media.
Search: **PA Rural Water**

To register by FAX or MAIL:

FAX: (814) 353-9341

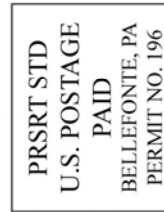
MAIL: 138 W. Bishop St., Bellefonte PA 16823

EMAIL: TRAINING@PRWA.COM

EMAILING REGISTRATIONS: EMAIL IS INHERENTLY INSECURE. CREDIT CARD INFORMATION SHOULD NOT BE EMAILED OR SEND IN AN ATTACHMENT.

Questions?

Call (800) 653-7792 ext. 107 or 108



138 West Bishop Street
Bellefonte, PA 16823
800-653-7792

WWW.PRWA.COM

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**Including Method 334.0
Quarterly Verification**

May 13, 2020

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Municipal Authority
Cumberland County**

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