

Preparing For A Sanitary Survey: For Small Systems

Date: October 5, 2018

Time: 9:00am-12:30pm

Location: Kill Kare State Park, 2714 Hathaway Point Road, St. Albans, VT

Credit: 3 TCH

Non-member cost: \$30



Member cost: \$24

Instructor: Matt Guerino (VRWA)

Designed for small water systems required to have a sanitary survey of their water system by the Drinking Water and Groundwater Protection Division. This seminar covers all aspects of a sanitary survey and how the water system operator can prepare for one. Topics covered include record keeping, source, treatment, disinfection, storage and distribution components that will be inspected during the survey. Sanitary surveys are designed to ensure that water systems are in compliance with the Water Supply Rule and provide safe drinking water to consumers. This course will have an onsite walk through of a Transient Non-Community Water System at the end of the course.

1+1=3: How To Vastly Improve Your Anaerobic Digester Biogas Production

Date: October 11, 2018

Time: 9:00am-12:15pm

Location: Montpelier Public Works Garage, 783 Dog River Road, Montpelier, VT (please park across the street in the recreation field parking lot)

Credit: 3 TCH

Non-member cost: \$30



Member cost: \$24

Instructor: John Forcier (Forcier Consulting Engineers)

Proctor: Wayne Graham (VRWA)

You can maximize your anaerobic digester energy outputs by feeding high strength wastes and feedstocks. By increasing methane production your digester can become truly self sufficient even in winter months. Extra energy production could also warrant the capital investment of co-generation and generate revenue. Lets make our wastewater facilities more efficient!

Small Systems Class 2 Water Operator Certification Course

Dates & Locations (choose one):

- October 16, 17, 18 & 23, 9:00am-2:00pm, Rutland Water Treatment Plant, 1139 Post Road Extension, Rutland, VT
- October 17, 18, 24 & 25, 9:00am-2:00pm, Lyndonville Garage, 75 Smiths Road, Lyndonville, VT

Credit: 18 TCH



Non-member cost: \$180 (plus \$30 for textbook)

Member cost: \$144 (plus \$30 for textbook)

Instructors: Matt Guerino (VRWA) - Rutland, Diana Butler (VRWA) - Lyndonville

This course is designed for those who will be taking the VT Class 2 Water Operator Certification Exam. The eighteen hour class provides a survey of aspects of operating a small public water system using groundwater as a source. The Safe Drinking Water Act (SDWA) requirements, sampling water sources, well construction, source protection, storage, distribution, hydraulics, cross-connections, safety, disinfection, treatment, and water math will be covered. This class is not designed for the operators of Transient Systems (TNCs) ***BRING A LUNCH***

Process Control of the Sequencing Batch Reactor

Date: October 17, 2018

Time: 8:30am-3:30pm

Location: Vermont Rural Water Association, 20 Susie Wilson Road, Essex Junction, VT

Credit: 6 TCH

Non-member cost: \$60



Member cost: \$48

Instructor: Michael Gerardi (Michael Gerardi & Assoc., LLC)

Proctor: Elizabeth Walker (VRWA)

Reviews the biology and chemistry of each phase of an operational cycle of an SBR. Biological and chemical events include: 1) cBOD reduction using dissolved oxygen and nitrate, 2) nitrification, 3) denitrification, 4) biological phosphorus release, 5) biological phosphorus removal, 6) control of undesired filamentous organisms, and 7) chemical precipitation of phosphorus.

Troubleshooting SBR's with respect to: 1) occurrence, 2) detection, and 3) correction. Operational problems reviewed include: 1) undesired filamentous organism growth, 2) nutrient deficiency, 3) "clumping," 4) dispersion of solids, 5) significant increase in percent MLVSS, 6) foam production and accumulation, and 7) slime bulking.

Biological Nutrient Removal

Date: October 18, 2018

Time: 8:30am-3:30pm

Location: Hartford Municipal Building, 171 Bridge Street, White River Junction, VT

Credit: 6 TCH

Non-member cost: \$60



Member cost: \$48

Instructor: Michael Gerardi (Michael Gerardi & Assoc., LLC)

Proctor: Elizabeth Walker (VRWA)

An in-depth review of the bacteria and operational conditions that are involved in the removal of nitrogen and phosphorus from the activated sludge process. The course reviews nitrification, the different forms of nitrification, troubleshooting nitrification and operational measures to promote nitrification. Also reviews denitrification, the occurrence of denitrification or an anoxic condition, troubleshooting denitrification and operational measures to promote denitrification. Biological phosphorus release in an anaerobic/fermentative zone and biological phosphorus uptake in an aerobic/oxic zone by poly-P bacteria are presented as well as operational conditions to promote biological phosphorus removal.

Leadership In Safety

Dates & Locations (choose one):

- October 25, 9:00am-12:30pm, Town of Bennington's Fire Facility, 130 River Street, Bennington, VT
- November 1, 9:00am-12:30pm, Newport City Fire Department, 350 Western Avenue, Newport, VT
- November 28, 9:00am-12:30pm, Vermont Rural Water Association, 20 Susie Wilson Road, Essex Junction, VT
- December 6, 9:00am-12:30pm, Hartford Municipal Building, 171 Bridge Street, White River Junction, VT

Credit: 3 TCH



Non-member cost: \$30



Member cost: \$24

Instructor: Dan Whipple (VOSHA)

Proctor: Elizabeth Walker (VRWA)

So often being safe on the job comes down to decisions we make. Equally often we find that decisions made that affect our working lives, are greatly influenced by the culture we work in. The anecdote "Employees will work to the expectations of their supervisor" illustrates this concept. In the Leadership in Safety training session, students will get a chance to understand the dynamic of culture as well as safety and health management systems and their place in the decisions that affect, not only individual safety but the safety of others as well.

Exam Preparation Course (Class 3/4/D)

Date: October 30, 2018

Time: 9:00am-2:00pm

Location: Rutland Regional Planning Commission, 67 Merchants Row, Rutland, VT

Credit: 4 TCH



Non-member cost: \$40

Member cost: \$32

Instructor: Matt Guerino (VRWA)

This course is designed as a short review for water operators prior to the Exam. The course will review Class 3, 4 and D water system operations. We will review testing theory, math questions, exam questions, and general water system operator questions. There will be a group exam taken during the course.

Small Systems Exam Preparation Course

Date: October 30, 2018

Time: 9:00am-2:00pm

Location: Lyndonville Garage, 75 Smiths Road, Lyndonville, VT

Credit: 4 TCH



Non-member cost: \$40

Member cost: \$32

Instructor: Diana Butler (VRWA)

This course is designed as a short review for water operators prior to the exam. The course will review Class 2 water system operations. We will review testing theory, math questions, exam questions, and general water system operator questions. There will be a group exam taken during the course.

Informational Network For Local Operators (INFLO) Updating Your Sewer Use Ordinance Roundtable

Date: November 29, 2018

Time: 9:00am-12:15pm

Location: Vermont Rural Water Association, 20 Susie Wilson Road, Essex Junction, VT

Credit: 3 TCH



Non-member cost: \$30

Member cost: \$24

Instructor: Round Table with Randy Bean, operators and managers

Proctor: Wayne Graham (VRWA)

This INFLO session will be an open forum roundtable discussion on updating your Sewer Use Ordinance. Who better to learn from than the wastewater operators and managers that have dealt with ordinances to protect their system and manage its assets. Issues discussed will include controlling high strength wastes, surcharges, public relations, capital costs, operation and maintenance costs.

Corrosion Control

Date: December 4, 2018

Time: 9:00am-12:30pm

Location: Vermont Rural Water, 20 Susie Wilson Road, Essex Junction, VT

Credit: 3 TCH

Non-member cost: \$30



Member cost: \$24

Instructor: Ryan Peebles (Clean Waters, Inc.)

Proctor: Matt Guerino (VRWA)

Corrosion issues water operators face: This training session will focus on distribution system corrosion and methods to combat it. Topics covered include: what is corrosion and what causes it, why some waters are more corrosive than others, problems corrosion causes, lead/copper rules, using phosphates and pH adjustment to combat corrosion. This session focuses on the use of polymer for solids separation.

Topics covered are what is polymer and how does it work, storage and handling, mixing and using polymer, how to make adjustments, spill clean-up. How Setting Goals Can Impact Your Plant and Your Life: Setting goals is an easy and extremely effective way to make a huge difference in your work and life. In this short session we'll cover what a goal is and how to go about achieving it.

Key



= approved for water credit



= approved for wastewater credit

3-Day Wastewater Math Class

Date: December 5, 12 & 19, 2018

Time: 8:30am-3:00pm

Location: Montpelier Public Works Garage, 783 Dog River Road, Montpelier, VT (please park across the street in the recreation field parking lot)

Credit: 18 TCH



Non-member cost: \$180

Member cost: \$144

Instructor: Eric Wahlberg (Wastewater Technology Trainers)

Proctor: Wayne Graham (VRWA)

This 3 day comprehensive math class will assist operators in streamlining their operations and will prepare operators for all grades of exam preparations. The following will be covered: conversions, area/volume, detention time, pounds, pounds per day, velocity, hydraulic loading, organic loading, solids loading, percent solids recovery, chemical dosing, activated sludge (SVI, F:M, SRT/MCRT), anaerobic digesters and pumping. This instructor is an excellent nationally recognized trainer, with unique math teaching skills. Students are strongly recommended to take all 3 days of classes. Please bring a calculator.

Discharges From Breweries and Food Industries To Your WWTF

Date: December 11, 2018

Time: 8:00am-12:30pm

Location: Vermont Rural Water Association, 20 Susie Wilson Road, Essex Junction, VT

Credit: 4 TCH



Non-member cost: \$40

Member cost: \$32

Instructor: Randy Bean

Proctor: Wayne Graham (VRWA)

Discharges from breweries and specialty food industries have been rapidly growing in Vermont in the past decade. The process wastewater discharged by these industries is very different from domestic sewage. The discharges from these industries into your municipal WWTF can have significant impacts on its ability to properly treat wastewater, operational costs, and the ability to connect future projects to your system. This class will provide an understanding of the pollutants discharged from these industries, the impacts on your WWTF, and how to work with these industries to reduce their impacts on your facility. Plus guidance on steps a municipality can take to control and protect itself from their impacts and recoup operational costs. This is a great class from a former long time staff member of VT ANR's wastewater management program and will provide you the knowledge to assess and limit the impact of these industries before problems occur at your WWTF.

Residuals Management In Vermont

Date: December 13, 2018

Time: 9:00am-12:15pm

Location: Hartford Municipal Building, 171 Bridge Street, White River Junction, VT

Credit: 3 TCH



Non-member cost: \$30

Member cost: \$24

Instructor: Eamon Twohig (DEC Waste Management)

Proctor: Wayne Graham (VRWA)

This class provides an overview of Vermont's residuals program including regulations, management options and challenges associated with sludge and biosolids management.

Water and Wastewater System Ethics

Date: December 13, 2018

Time: 9:00am-12:30pm

Location: Vermont Rural Water Association, 20 Susie Wilson Road, Essex Junction, VT

Credit: 3 TCH



Non-member cost: \$30



Member cost: \$24

Instructor: Matt Guerino (VRWA)

A review of ethical behavior and its importance as a Water or Wastewater Operator. The course will identify what constitutes unethical behavior and the penalties that accompany this behavior. The course reviews examples of improper practices and review correct procedures.

Effective Utility Management

Date: December 18, 2018

Time: 8:30am-2:30pm

Location: Vermont Rural Water Association, 20 Susie Wilson Rd, Essex Junction, VT

Credit: 5 TCH



Non-member cost: \$50



Member cost: \$40

Instructors: Paul Sestito, Diana Butler and Wayne Graham (VRWA)

This workshop is designed to assist utilities in addressing the challenges and improving the management of their operations and infrastructure. Topics will include: How to deliver increasingly efficient and higher quality services · How to improve long-term sustainability and increase resiliency · How to use the Rural and Small Systems Guidebook to Sustainable Utility Management to make improvements at your system. Through group and individual exercises, including team and self-assessments, participants will learn how utilities can make improvements in ten key management areas, with a focus on their most pressing challenges. *BRING A LUNCH*



Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5 Sanitary Survey for Small Systems	6
7	8	9	10	11 Improve Your Biogas Production	12	13
14	15	16 Class 2 Certification	17 SBR Process Control / Class 2	18 Biological Nutrient Removal / Class 2	19	20
21	22	23 Class 2 Certification	24 Class 2 Certification	25 Class 2 / Leadership in Safety	26	27
28	29	30 Exam Prep—2/3/4/D	31			

November 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 Leadership in Safety	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28 Leadership in Safety	29 Sewer Use Ordinance Roundtable	30	

December 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 Corrosion Control	5 3-Day Wastewater Math	6 Leadership in Safety	7	8
9	10	11 Discharges From Breweries	12 3-Day Wastewater Math	13 Residuals Management / System Ethics	14	15
16	17	18 Effective Utility Management	19 3-Day Wastewater Math	20	21	22
23	24	25	26	27	28	29
30	31					



Wayne Graham, smoke testing in St. Albans

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Rural Water Association



Registration Information

Deadline: Two business days before course date. Registrations received less than two days before a session are subject to a \$20 late fee. **No walk-ins allowed. Sign-in begins 15 minutes before the start of the course.**

Register on the web:

www.vtruralwater.org

Register by mail: Complete the form below and send it with a check or money order for the full amount to:

**VRWA
20 Susie Wilson Road, Suite B
Essex Jct., VT 05452**

Register by fax: You may complete the form below and fax it to **866-378-7213**.

Seating is limited, so register early. Your cancelled check confirms your registration; you will only be notified if the course is cancelled.

Fees

Due to government support secured by VRWA, we are able to offer courses at a reduced rate. The actual training is free of charge, but all courses have a materials fee.

Cancellations / Refunds

If you will be unable to attend a class, you must contact our office at least 24 hours in advance to receive a refund.

Member rate

VRWA member systems receive a 20% discount. To join VRWA, call 802-660-4988 or visit www.vtruralwater.org.

Special needs

Please contact us at 802-660-4988 prior to your class if you have any special needs.

Credit

Training Contact Hours (TCHs) are awarded for all training courses. These are applicable for operator certification in Vermont. You must attend 100% of the course in order to receive TCHs. Course objectives determine whether credits are applicable to a water operator or a wastewater operator's certification; some courses apply to both types of certification. **All attendees will receive a record of TCHs earned after completing a course.** Reprints of lost TCH certificates are available for a fee.

Registration Form

Duplicate this form to sign up for more than one course.

Course Name _____

Date & Location _____

Attendee Name(s) _____

Facility/Business _____ **WSID# or WW#** _____

Address _____

City, State, Zip _____

Phone _____ Emergency Phone (for cancellations due to weather): _____

Email _____

Total Payment Enclosed _____

Questions? Call 802-660-4988.



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www.vtruralwater.org

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To view the most current training schedule, visit www.vtruralwater.org

Do not discard until December 31, 2018.

**IMPORTANT WATER & WASTEWATER OPERATOR
TRAINING ANNOUNCEMENT ENCLOSED**

VRWA has partnered with SunCoast Learning to provide quality online training, written FOR water and wastewater professionals BY water and wastewater professionals.

The following courses (and more) are available in Vermont for water and/or wastewater hours, ranging from 1 to 10 TCHs. Cost is \$25 - \$225. Courses in italics are accessible with mobile devices.

Advanced Math · Applied Confined Space Safety · Basic Environmental Chemistry · Basic Wastewater · Basic Water Works · Chemical Feed Systems & Pump Calibrations · Chlorinator Systems and Chemical Handling · Customer Service Inspection & Cross-Connection Control · Disinfection By-products · Dissolved Air Flotation · Drinking Water Filtration, A-Z · Hazard Communication · Maintaining Water Quality in the Distribution System · Membrane Treatment of Wastewater · Operator Handbook · Pump and Motor Maintenance · Small Water Systems 1 · Surface Water Production 1 · Surface Water Production 2 · Surface Water Treatment · Understanding Stage 2 Disinfection By Product Rule · Valve and Hydrant Maintenance · Wastewater Collection · Wastewater Treatment · Water Transmission and Distribution

GET STARTED! Go to
www.suncoastlearning.com
and click on Vermont.

