Future Class 3 & 4, Distribution, and Class 2 Water Operator Certification Opportunities

Phil Acebo, Training Specialist

As summer approaches, the training calendar for certification is completed for the fall. Currently VRWA offers these classes twice a year, in the south (Rutland 2011), and a northern site for the spring of 2012. The only exception is the Class 2 certification, which is offered four times per year, two in the north and south.

For those interested in these certifications, the classes vary in length: Class 3&4 (class 3 ground water and class 4 surface water) is nine sessions, which may be twice per week, Distribution is six sessions, and the Class 2 (ground water) is for four days. Following these classes and just prior to the exam, review classes are offered to help reinforce material and deal with those nagging concerns folks may have. As most operators will tell you, water related math is a portion of the exam which could be anywhere from 10-15%. With practice, this math can be successfully mastered which will reduce some of the anxiety a testing situation can create.

VRWA is part of the team in this endeavor, the instruction portion. The Water Supply Division is charged with providing the exam. Currently they use the services of the American Boards of Certification, known as the ABC Exam. This is a national board certification and could aid an operator with portability from state to state. However, understand that there is no uniformity at this time in national certification. A Class 4 operator in Vermont may not be known by the same classification in Texas.

What it does give an operator is similar knowledge, and combined with experience, the potential to qualify for certification in other states. It’s important to remember that when you take the VRWA classes you are responsible for registering with the Water Supply Division. This formality is still conducted by mail and cannot be completed via the internet. However, forms are available for mailing and you will be given the form to register with, just in case some lack internet access. Historically these exams are given the first Friday in May and November and two sites are utilized.

Another important piece of the certification process is the actual operator certification. Many may think that by taking the exam you are then automatically a certified operator. Not accurate. Operator certification is based on two criteria: passing an exam and operator experience. For Class 2, Class 3, and Distribution the individual would need 1.5 years of...
Since 1982, Vermont Rural Water Association has supported water and wastewater systems across the state. We provide many services, including training, source water protection planning, and onsite assistance.

Board of Directors

Ed Savage, Town of West Rutland
Richard Desautels, Colchester FD#2
Rod Lamothe, Castleton Meadows
Paul Carroccio, Piper Ridge Homeowners Association
Harry Hinrichsen, Town of Barre

20 Susie Wilson Road, Suite B
Essex Junction, Vermont 05452-2827
802-660-4988 voice; 866-379-7213 fax
vrwa@vtruralwater.org; www.vtruralwater.org

Contact Our Staff

Call us at 800-556-3792

Training Specialist
Phil Acebo, Ext. 337, pacebo@vtruralwater.org

Water Systems Specialist
Brent Desranleau, Ext. 322, bdesranleau@vtruralwater.org
Paula Jackson, Ext. 332, pjackson@vtruralwater.org
Aaron Perez, Ext. 331, aperez@vtruralwater.org

Wastewater Specialist
Wayne Graham, Ext. 319, wgraham@vtruralwater.org

Source Protection Specialist
Liz Royer, Ext. 336, lroyer@vtruralwater.org

Executive Director
Shaun Fielder, Ext. 315, sfielder@vtruralwater.org

Publication Staff

Tim Russo, Ext. 305, trusso@vtruralwater.org

News Leaks is the official publication of VRWA. It is published quarterly for distribution to operators, owners, managers and board members of water and wastewater systems in Vermont, as well as to association members, water and wastewater service providers, regulators, and other friends. Opinions expressed in the newsletter do not necessarily reflect the views and policies of VRWA.

For advertising rates and submission criteria, please call 800-556-3792. We reserve the right to reject advertising deemed unsuitable. Acceptance of advertising does not constitute endorsement of the advertiser’s products and services, nor do we make any claims or guarantees as to the accuracy or validity of the advertiser’s offer.


Letters

February 7, 2011

Mr. Shaun Fielder
Executive Director
Vermont Rural Water Association
20 Susie Wilson Road, Suite B
Essex Junction, VT 05452-2827

Dear Mr. Fielder:

I want to take a moment to communicate Greenwood School’s gratitude to you and to VRWA for the professional services you have provided to our school. As a very small boarding school serving 45 boys who face complex learning challenges, and with very few employees, we truly depend on resources provided by Vermont Rural Water Association to help us service our water system and create our source protection plan. Providing no-cost assistance that aids us in effectively managing our water system is a significant and deeply appreciated benefit to our school and community.

Thank you for all you do; we will enthusiastically maintain our membership in VRWA and welcome opportunities to support your organization.

Sincerely,

Stewart Miller
Headmaster

AQUASTORE® technologically advanced, glass-fused tanks, are easily designed for future expansion
When You Grow... We Grow With You

With AQUASTORE® you don’t need to find another site location or construct another storage tank.

• We’ll design the foundation up front for future expansion.
• Expansion is fast and easy because of the top down AQUASTORE® expansion method.
• Expansion possible in one week.
• A fraction of the cost of a new tank.
• Because AQUASTORE® tanks sustain beauty and NEVER require recoating on the interior or exterior, you can expand your tank even 30 years after installation and not see any difference between the old and the new tanks.

Built in 1985  Expanded in 2005

6010 Drott Drive • East Syracuse, NY 13057-2949 • 1.800.H2O.TANK • 1.800.426.8265 • www.besttank.com
Annual Conference
On May 4 & 5, we hosted our Annual Conference at the Lake Morey Resort in Fairlee. Nearly 200 individuals attended for another spectacular event.

Wednesday’s cold and rain was not enough to discourage many golfers from joining us for our 10th annual tournament. Thanks to all who participated and congratulations to the tournament winners.

Thursday was full of great training sessions and a busy vendor exhibit area.

During lunch, we were honored to present Rick Kenney (Town of Hartford) as this year's Tony Torchia Award winner. Rick was recognized for his dedication to the profession.

Though she was not able to attend the conference, we also recognized Doris Dastalto for her ten years with VRWA. Congratulations and thanks to Doris!

We recognized 42 members who celebrated membership anniversaries at the 5, 10, 15, 20 and 25 year levels. Special recognition goes to Country Estates Water Company, Village of Jeffersonville, Cavendish Water Department and Phelps Engineering for their 25 years of membership.

Lunch finished off with a very funny performance by The Logger.

We wrapped up the event with our annual membership meeting, where Dick Desautels (Colchester Fire District #2) was announced as the winner of the director election. He will serve another three year term as director.

A big thank you to all of this year’s sponsors for making the event a success:

Platinum
Ferguson Waterworks

Gold
E.J. Prescott
Natgun

Silver
Aldrich + Elliot
Associated Electro-Mechanics
Badger Meter
Ford Meter Box
Hach
Statewide Aquastore
Ti-SALES
Weston & Sampson

Bronze
Otter Creek Engineering
ECS Consulting

2010 Annual Report Available
The Vermont Rural Water Association 2010 annual report is now available.

Please visit www.vtruralwater.org to request your copy, or call our office at 802-660-4988 ext. 305.

PITTSBURG TANK & TOWER MAINTENANCE CO., INC.
SAVE!
We have a crew in YOUR AREA!

ROV inspections can be viewed on TV console during inspection & DVD provided. All inspections include bound reports, recommendations and cost estimates.

Hugh McGee
270-826-9000 Ext. 330
www.watertank.com
During the 2007-2008 legislative session, the Vermont legislature enacted a comprehensive groundwater protection program for Vermont. Included in this act was the designation of groundwater in Vermont as a public trust resource; groundwater must be managed for the benefit of all Vermont residents. Approximately two-thirds of Vermonters depend on groundwater for their drinking water supply.

While the new law enumerated types of groundwater withdrawals that would be deemed to comply with the public trust requirements, the full impact of designating Vermont’s groundwater a public trust resource remained unclear. A February 28, 2011 decision issued by the Vermont Environmental Court helps to clarify this designation by finding that groundwater must be managed as a public trust resource with regard to both groundwater quantity and quality. This decision is the first interpretation of Vermont’s public trust statute.

The decision stemmed from a case involving Omya, Inc. and Residents Concerned About Omya, with the latter appealing a final solid waste certification (i.e., solid waste permit) for a tailings management facility designed to accommodate processing waste generated by Omya’s calcium carbonate processing facility in Pittsford. The key issue was the potential for groundwater contamination from the proposed facility. The final solid waste certification for the tailings management facility was issued to Omya by the Vermont Agency of Natural Resources (ANR).

The primary issue before the Environmental Court was to determine if a public trust analysis is necessary in association with the issuance of the final solid waste certification for Omya’s tailings management facility. The Environmental Court found that, although the ANR considered potential impacts to groundwater quality and determined that the proposed facility meets the requirements of Vermont’s 2005 Groundwater Protection Rule and Strategy, the ANR must also perform an additional level public trust analysis before the issuance of the final solid waste certification for the tailings management facility. In addition, the ANR must determine how to incorporate the public trust groundwater analysis into the solid waste certification process.

Obviously, the Environmental Court’s decision leaves some questions regarding the process and methodologies to be used in performing a public trust analysis for groundwater. However, what was made clear by the court’s decision is that both groundwater quality and quantity must be thoroughly evaluated during permitting processes for facilities that may adversely impact Vermont’s groundwater resources. The full opinion can be found at the Environmental Court’s website: http://www.vermontjudiciary.org/GTC/environmental/default.aspx.

The Vermont Rural Water Association works with public water systems across the state with groundwater sources to develop source water protection strategies and prepare source protection plans.
Bottling Wastewater Expands Island’s Oasis—Singapore’s NEWater Path to Independence

Singapore, a southeast Asia city state of 5 million residents, has been recycling treated municipal wastewater to increase its freshwater supply for seven years. The process works so well that the city is now branding the same water as bottled NEWater for drinking. By Brett Walton, Circle of Blue (reprinted with permission; submitted by Brent Desranleau, VRWA Water Systems Specialist)

Recycled treated wastewater, which Singapore has branded “NEWater”, is providing 30 percent of the Southeast Asian island city-state’s total demand for fresh water.

The small, densely populated island enjoys heavy rainfall, but lacks sufficient watersheds and natural rivers from which to draw water. Because space to store water is so tight, the city of five million residents has always relied for its drinking water on unconventional sources—including imports—and has transformed two-thirds of its landmass into storm and water catchments.

Until this year, imports from neighboring Malaysia accounted for 40 percent of the nation’s 300-million gallon daily demand for fresh water. For political and economic reasons, however, the government decided not to renew the import contracts, which were signed in 1961 and expire in 2011 and 2061.

When imports end, Singapore’s three freshwater sources will be local—rainfall in catchments, desalination, and NEWater.

NEWater is Singapore’s own brand of reclaimed water and is essentially wastewater purified by two rounds of treatment. Initially used for industrial purposes only, a small portion of NEWater is now returned to reservoirs, where it blends with rainwater before entering the standard drinking water treatment and distribution system.

To make potable water out of what goes down the drain and toilet, Singapore’s NEWater recycling plants take water from standard treatment facilities and then use an additional three-step purification process: micro-filtration, reverse osmosis, and ultraviolet treatment. The end product meets drinking water standards set by the World Health Organization, the U.S. Environmental Protection Agency and Singapore’s own national agency.

Towers of micro-filtration units remove particles and pollutants as water passes through the expansive complex on the city’s outskirts.
In May 2010, Singapore opened its fifth and largest NEWater plant, which has the capacity to recycle up to 176 million gallons per day.

NEWater is distributed by Singapore’s water utility through the tap, and it is also distributed in bottles at the NEWater visitor center and at community promotional events.

(right) Mission Control: Engineers manage vast systems of pipes, pumps and valves with mouse clicks and keystrokes to turn sewage into clean, safe drinking water.

Circle of Blue is the international network of leading journalists, scientists and communications design experts that reports and presents the information necessary to respond to the global freshwater crisis. It is a nonprofit affiliate of the internationally recognized water, climate and policy think tank, the Pacific Institute.

Circle of Blue practices non-advocacy journalism and science, striving to report issues to the highest standards of journalistic and scientific ethics. It subscribes to the Society of Professional Journalists Code of Ethics.

Contributions to Circle of Blue are tax-deductible.

EAI Water & Wastewater Experience
PROVIDING LABORATORY SOLUTIONS

- Wastewater characterization evaluations
- River discharge studies
- New well installation
- Routine Water & Wastewater monitoring

Proper planning, quality data, & exceptional service = SUCCESS!
Free Energy-Saving Resource for Wastewater Facilities
by Amy Rubin, Efficiency Vermont

An energy-saving resource is now available, online, from the U.S. Environmental Protection Agency. The 200+ page document Evaluation of Energy Conservation Measures for Wastewater Treatment Facilities provides technical and cost information on efficient technologies and operational approaches.

“This is a valuable document for wastewater-treatment facility owners, operators, and design engineers,” says Dmitri Hudak, Vermont Rural Water Association Efficiency Circuit Rider. “It enables utilities to make informed decisions about energy use and provides an independent assessment of emerging technologies with the potential to provide substantial energy savings.”

Highlights include a discussion of the design and control of aeration systems, an overview of blower and diffusion technologies, and information on energy-savings approaches for pumping systems. Nine case studies illustrate project costs and simple cost paybacks.

The document is downloadable at http://water.epa.gov. Click on Science & Technology, Wastewater Technology, and then Publications & Reports.

Program update: As noted in Shaun Fielder’s cover article in this issue, Dmitri Hudak will be leaving our association on June 30. VRWA is in the process of hiring an energy efficiency specialist and in the interim you can email questions relating to energy efficiency opportunities to vrwa@vtruralwater.org

Welcome to our New Members
- Huntington Fire District #1
- Engineering Ventures
- Richard Perez, PACP/MACP Master Trainer
- True Wastewater Consulting LLC
- Abtec, Inc.
This column details unique solutions to difficult problems that operators come up with everyday. Below are several cases of operators solving large problems, saving money and making life at their second homes (treatment plants) a little easier.

- The operators at the Brighton WWTF are always finding new ways to be more efficient; they have improved chlorine contact tank effectiveness by using a submerged sump pump with no hose attached as a mixer.

- Their existing alarm/scada system that allows the pump station to communicate with the plant was modified to allow operators at the intermittent flow facility to force a pump station pump cycle so they can get an influent sample on demand without waiting 30 minutes – Nice!!

- Sodium Hypochlorite usage seems to always have room for improvement. Most operators will not dilute hypochlorite unless it is necessary; diluted hypochlorite tends to crystallize and plug pump and discharge line fittings. Downsizing delivery lines to your chlorine contact tank allows some facilities to discontinue the use of carry water. Peristaltic pumps work great for off gassing chemicals such as hypochlorite because they are self priming and do not go air bound. Maintenance is very simple with a peristaltic pump and requires minimal spare parts. To help maintain hypochlorite strength, cover windows to keep out daylight and keep chemical rooms cool in the summer.

- Saving money at our facilities is also a constant goal. I have found that replacement equipment and parts for VRWA’s tracked CCTV sewer camera are available from aftermarket suppliers at greatly reduced prices. The cables and tracks that I purchase for the camera are not only cheaper but are much better quality!

If your system is a VLCT member, safety training and equipment grants are available. Enosburg Falls operators have a supplier for used pumps and equipment that appears to be very promising; the web site is:

info@americaninstrument.com

Searching government auction websites, wastewater association classified sections and your neighboring facilities are also good ways to find cheap equipment - some of it has never even been used. So don’t be afraid to shop around a little!

If you have interesting ideas that you want to share, send them to me; we will include them in News Leaks in the future. I also encourage you to tour other facilities and share ideas; you will find that networking with other operators can be very beneficial. Several organizations can also help; VTWARN, GMWEA, VLTC, VT WW Management and of course, VRWA!
“An Ever Changing Work Environment” continued from cover

Given the upcoming end of the EPA source protection planning program, Eric Hanson made a decision in late April to take a position with a national hydrogeology firm. We all wish Eric the best and are sorry to see him leaving VRWA. He has been with us for 5 years and it has been a pleasure having him as a team member. I will be taking over the source protection planning program duties on a part time basis through the program end later this summer. Please note Liz Royer continues her work on her source protection planning work since it is funded through a separate program (national source water program). This program did experience a slight reduction at the national level, but it is continuing.

We are pleased to point out Paula Jackson is continuing her employment with VRWA when the EPA training and technical assistance program ends later this summer. As noted above, we are planning adjustments on our business approach on various services offered to cover the lost revenue and we plan to implement some fee for service activities; Paula will be involved with these. In addition thanks to support and backing of the Vermont Water Supply Division, we are negotiating an expansion of the Vermont training coordination contract with Water Supply. The plan through early 2012 is for Paula to keep working on continuing education activities for a portion of her overall time alongside Phil Acebo (and Wayne Graham on the wastewater side). Thank you to the DEC officials for their efforts and support as negotiations continue.

One other change in regards to VRWA team members; Dmitri Hudak our Energy Efficiency Specialist is ending his work with us on June 30, 2011. He has taken another position in the energy efficiency industry. Dmitri started with VRWA on the ARRA circuit rider program and has worked on the energy efficiency program since fall of 2010. A good number of efficiency projects are now being implemented due to his assistance with various water and wastewater facilities across the state. We will be continuing this work and keep all posted on personnel changes related to this program. Best of luck to Dmitri as well.

We are not sure what the cards will hold for FY2012 national funding as Congress is just beginning the debate now. Information available at this time indicates the EPA rural water program is being written back into the budget and the other rural water programs are listed as line items as well, we hope for the best.

The recent feedback and support we have been receiving given all these changes is amazing. We are normally in the position of offering assistance and it is very rewarding to get this support from many different directions. Please keep the memberships, donations, and letters of support coming to us. I am confident our association is reacting appropriately to the given changes noted above and we will continue to meet our mission to promote public health and a clean environment by providing support to water and wastewater systems of Vermont.

Thank you for your continued support of the Vermont Rural Water Association.

Contact Phil Acebo at 802-660-4988 ext. 337 or by email at pacebo@vtruralwater.org
CURRENT RESIDENT OR

Featuring products in the following categories:
- Aeration
- Chart Recorders
- Chemical Feed
- Collection Systems
- Electrical
- Flow Metering
- Gauges
- Grounds Maintenance
- Hose
- Hydrants
- Lab Chemicals, Equipment & Testing
- Level & Pressure
- Locating & Leak Detection
- Maintenance
- Office Products
- Pipe
- Plugs
- Process Analyzers
- Pumps
- Reference
- Safety
- Sampling Equipment
- Security
- Stormwater
- Tanks
- Tools
- Valves
- Water/Wastewater Treatment
- Workwear

**USABlueBook** has EVERYTHING YOU NEED for Water & Wastewater Operations

Unsurpassed personal customer service & expert technical support

Over 27,000 items in stock & 95% of orders ship the same day

Nationwide distribution centers to serve you better!

Announcing the opening of our NEW East Coast

**BOSTON DISTRIBUTION CENTER**

Call 1-800-548-1234 & request your FREE MASTER CATALOG 122

We’re celebrating 20 years of service!

**USABlueBook**

Get the Best Treatment™ • 800-548-1234 • www.usabluebook.com