Virginia Creates
Training Opportunities
for Operators

When the 1996 Safe Drinking Water Act Amendments specified minimum standards for operator certification, Virginia had to sit up and take notice.

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Now the Virginia Board for Waterworks and Wastewater Works had to get moving. The board adjusted their regulations in 2001 to create a classification for very small systems called Class VI. The new regulation states that operators of these systems must now obtain a license to operate their waterworks—meaning that they must take and pass the state examination.

Virginia’s Office of Drinking Water (ODW) contacted each waterworks that fell into this category and told them of their new Class VI status and the requirements that went along with it. Initially, operators were allowed to apply for a grandparented license to avoid taking the Class VI exam immediately. The grandparented license would last for three years. Once it expired, the operator would have to pass the exam to keep his or her license valid.

Creating the new law was the easy part. Implementing it would prove to be the hard part. There were many things that ODW had to consider.

**Small Systems Proliferate**

Even with the new operator certification requirement, the number of very small systems continues to grow. Today, there are almost 1,200, which is more than 60 percent of all public drinking water systems in Virginia. (See Figure 1 on this page.) Because all of these systems are required to have a licensed operator, the ODW wants to develop training programs specifically designed for these systems—but they need money.

In search of monetary help, the ODW received an expenditure reimbursement grant from the U.S. Environmental Protection Agency (EPA). These grants assist owners and operators of small waterworks who have to comply with the federal operator certification guidelines. Virginia’s ODW used this funding to develop the necessary training and certification programs that Class VI operators need.

**Operators Are Everywhere**

When the ODW developed these programs, it wanted to provide the best training possible. To do this, the ODW first needed to understand the demographics of the operators. The Class VI operators comprise a wide variety of different lifestyles. These operators are daycare center workers, mobile-home park owners, rural subdivision associations, school maintenance departments, and very small municipalities. More than 50 percent of the systems serve populations of fewer than 100 people (See Figure 2 on page 30). These systems are evenly spread over the state of Virginia, but are particularly found in rural areas. So training classes needed to reach the entire state.

Another concern was that many Class VI operators do not perform their water testing duties on a full-time basis. In fact, some operators volunteer their service. Others work full-time jobs and spend very little time at the waterworks. Many operators have not taken tests since high school, and the math section makes some people very nervous, making it difficult to pass the exam.

ODW recognized that operators need training classes to help them understand the subject matter on the exam, but the training classes would only be successful if they met the schedules of the operators. All classes are conducted around work schedules and training material can be studied at home or after business hours.

ODW created a special program just for Class VI operators called the Virginia Center for Very Small Waterworks. The center focuses on providing all kinds of information for Class VI operators, including

Prior to these requirements, Virginia did not stipulate that very small systems (those serving between 25 and 300 people) and nontransient, non-community waterworks must have licensed operators. In fact, there wasn’t even a waterworks classification for these systems.
training tools, reimbursement procedures, communication, and examination information.

Training Tools

The center uses a toolbox concept to build its training program. Just as each tool in a toolbox serves a different purpose, the center wants to create training material and classes that meet the needs of all operators. Because everyone has a different learning style and personal schedule, the center came up with several ideas that would fit everyone. More importantly, the center offers as many free training tools as possible. The expenditure reimbursement grant provides the necessary funding to accomplish such an important goal.

The development of the *Class VI Operator's Training Manual* was a collaborative effort among some of Virginia's most knowledgeable waterworks operators and a myriad of state agencies. The manual is written especially for the operators of very small waterworks in Virginia. The purpose of the manual is to:

- introduce operations concepts to Class VI waterworks operators,
- educate operators on the skills necessary to run a Class VI waterworks successfully, and
- prepare operators for the licensure examination

The manual is arranged in chapters that highlight seven specific content areas and includes a sample test that mimics the style of the Class VI examination.

The center also offers the *Operator Basics* compact disc. Produced by the Montana Water Center, the CD is available from the National Drinking Water Clearinghouse. The project is funded by EPA's Office of Ground Water and Drinking Water and provides technical assistance to operators of small, public drinking water systems. This CD is filled with very helpful information to small groundwater systems, and many instructors actually use graphics from the CD in their presentations. The educational material is supplemented with a series of challenging, interactive, and fun activities.

The Center for Very Small Waterworks, in partnership with Virginia Polytechnic Institute and State University, has developed a series of free professional development workshops for Class VI operators. The workshops are broadcast simultaneously to 13 locations throughout Virginia approximately once a month. Through the use of interactive technology, each operator has the opportunity to engage in discussions and to ask specific questions of the presenters and other participants. The topics of each workshop coincide

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**Figure 2 - Distribution of Very Small Water Systems in Virginia by Population Served**

![Bar chart showing the distribution of very small water systems in Virginia by population served.](chart.png)
with each chapter in the *Class VI Operator’s Training Manual*. Continuing education units are earned with the successful completion of each workshop. A workshop booklet, a program evaluation sheet, a short quiz, and a comprehensive list of participants (used for networking purposes) are presented to each operator at every workshop.

The Virginia Rural Water Association is providing several free training classes designed for Class VI operators. The association offers one-day classes that cover most of the exam topics. As well as classes that focus specifically on the math covered in the exam. This type of instruction allows operators to sharpen their skills in an area that usually causes problems or anxiety.

The center has also developed a circuit rider program with the Southeast Rural Community Assistance Project. Through this program, each Class VI operator who needs to take the exam is offered the opportunity to receive free personalized training. Circuit riders contact operators and arrange to meet with them to answer any questions they have. In addition to exam content training, these technical assistance providers help with anything else operators might need, including how to fill out the application, problems they have with their systems, and more. Circuit riders will visit 800 Class VI operators over the course of three years.

Future training classes include a two-and-a-half day training session called “Class VI Operator’s Short Schools.” This class is for operators who want to spend a short, intense amount of time preparing for the exam. The exam content areas will be taught, as well as basic computer training. The cost of this course will be minimal since the expenditure reimbursement grant covers most of the expenses.

**Reimbursement**

Along with many of the free training tools, Class VI operators also have the opportunity to receive a reimbursement for the fees associated with receiving an operator’s license. All Class VI operators are eligible to receive an application fee refund for their grandparented Class VI license and their first regular Class VI license. Currently each license application costs $85.

These costs can have a big impact on the budget of very small waterworks. Reimbursement is also used as a motivation factor to help convince operators that this process will not have much monetary impact on their system. The center wants operators to understand that although they cannot be reimbursed for the time spent preparing for the exam, they can be reimbursed for the money they have spent. As of the end of October 2003, more than 260 reimbursements had been issued.

**Communication**

Web site communication is essential so ODW designed [www.va-classix.com](http://www.va-classix.com) to provide every Class VI operator with an up-to-date resource of information. This Web site highlights all of the free training tools available, provides links to several Class VI newsletters, details the list of stakeholders, and allows operators to join a mailing list. More importantly, the site provides the necessary contact information for ordering training material, obtaining reimbursements, and downloading the licensure exam application.

Mass mailing has been one of the most popular methods of communication for Class VI operators. An initial letter was sent to all operators introducing the establishment of ODW designed [www.va-classix.com](http://www.va-classix.com) so that every Class VI operator would have an up-to-date information source.
the Virginia Center for Very Small Waterworks. Contact information for the coordinator of the program and details of upcoming workshops were first discussed. A survey card was also included in each Class VI Operator’s Training Manual to evaluate the effectiveness of the training tools while preparing for the exam. Another mailing announced the launch of the online licensure examination beginning in 2004.

An important part of the mailings is keeping up-to-date records in the operators database. This database was designed by the center to keep track of all operators that are preparing to take the exam. Address, phone numbers, and e-mail addresses are kept current. Also noted in the database are the training materials and classes an operator has attended, along with their license numbers and expiration dates.

Examination

One obstacle the center had to overcome was scheduling the Class VI exam. For all higher classification waterworks, the exam is only offered three times per year at five locations across Virginia. The center wanted to offer the exam more times per year and at more locations, as well as move to a computerized format. A partnership with the Virginia Cooperative Extension provided administrative help with the new exam format. In 2004, the computerized version of the Class VI exam will be offered six times with 107 possible testing locations, offering more than one test site per county. The flexibility of this program is expected to make scheduling the exam more reasonable.

Testing times will be available in the morning and afternoon so that operators will not be locked into one test time per day. The center will also look into offering evening times if necessary. By having so much flexibility with test dates and locations, the main objective of licensing as many operators in the next two years is certainly an obtainable goal. This is the first time the waterworks exams are being offered in a computerized format in Virginia. If this program is successful, the higher classification waterworks exams may also move to a computerized format in the future.

Virginia Center Looks Forward

With funding until 2006, the center is in full swing working with very small waterworks to help them pass the licensing exam. Operators will continue to receive the most current training materials and programs through the duration of the grant. The center will still act as a resource to answer any questions or address any problems that arise. It will also continue to disseminate information to operators to keep them updated with the latest waterworks information.

The center also plans to create an operator-training infrastructure that includes the creation of a database to monitor training classes and attendees. This learning management system will be open to all training providers and instructors. A steering committee will be created to evaluate Virginia’s training needs and the effectiveness of current programs. The system will track operators, the training classes they attend, and create reports to track their progress as well as whether they advance to higher classifications and how effective the training was.

The Virginia Center for Very Small Waterworks provides a one-stop-shop for information pertaining to Class VI training and licensing. It also serves as an advocate for operators, ensuring their needs are heard and addressed. By creating a classification for very small waterworks, Virginia has helped operators meet the federal operator certification guidelines. But the state goes above and beyond this requirement. It has created training materials and classes, provided reimbursement for expenses, increased communication between operators and ODW, improved the licensing exam, and more.

For more information about Virginia’s program, contact them at (804)786-8861; or write VDH Office of Drinking Water, 1500 E. Main St., Room 109, Richmond, VA 23219. You also may e-mail Pustilnik at Rachel.Pustilnik@vdh.virginia.gov.

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