

TAPPING IN



*The Quarterly Training Newsletter from the
Small Public Water Systems Technology Assistance Center*

**This U.S. EPA Center provides training opportunities for
trainers and operators of small water systems.**



The training includes far-ranging topics from computer skills through laboratory analysis, chlorination applications to small system operation, and equipment maintenance. Training is generally designed to be hands-on with lots of operator/trainer/equipment interaction.

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Web page

Online back issues can be found at:

www.hbg.psu.edu/etc/

just click *Newsletters*

Be sure to visit our Web site for current offerings of workshops and events or contact Sue Hipple at 717-948-6358.

DEP to Discontinue Spring and Fall Course Offerings

After the fall of 2003, DEP will no longer offer the spring and fall scheduled drinking water and wastewater operator fundamental training courses on a regular basis. However, DEP will maintain a limited capacity to offer courses (as budgets and other circumstances permit).

The spring and fall courses (often referred to as the Sacramento Courses) are the fundamental courses for water and wastewater operators. Since the 1970's, these courses have been offered by the Commonwealth of Pennsylvania every spring and fall. Initially, they were offered by the Department of Community Affairs or DCA (DCA no longer exists in Pennsylvania), then by DEP. There were numerous factors that played into this decision. These factors include: budgetary concerns, the ability of the agency to keep up with increased demand for training, and administrative capabilities.

The PSH Environmental Training Center, as well as other approved training providers, will be offering these courses in the future. For information on Sacramento Course offerings through the Environmental Training Center, contact: Brenda Firestone, 717-948-6538, blf3@psu.edu.

DEP will maintain a capability to provide technical assistance (Water & Wastewater Outreach programs) and the ability to provide seminars or specialty training courses. Technical assistance is provided upon request based upon priorities and budgets. Any courses offered by DEP will be posted in the upcoming events portion of the web site.

For more information go to www.dep.state.pa.us/dep/deputate/waterops/Redesign/PAGES/opertrain.htm

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Workshops on CD

The Environmental Training Center has developed hands-on workshops for water and wastewater operators as part of its Pennsylvania Department of Environmental Protection partnership program. The courses have been approved for operator certification continuing education in Pennsylvania and are offered throughout the state. The Small Public Water Systems Technology Assistance Center (SPWSTAC) received approval under their EPA grant to produce CDs of selected operator workshops, making them available to other states and Technical Assistance Centers. The hope is that operators in other states will benefit from the training available to operators in Pennsylvania.



The CD will include the instructor manual, student workbook and overheads in PDF format. Overheads are also available as a PowerPoint presentation. This summer SPWSTAC will have available CDs for the Chemical Feed Pump Workshop, Jar Testing Workshop, Water Chlorination Workshop, and Water Analysis Workshop.

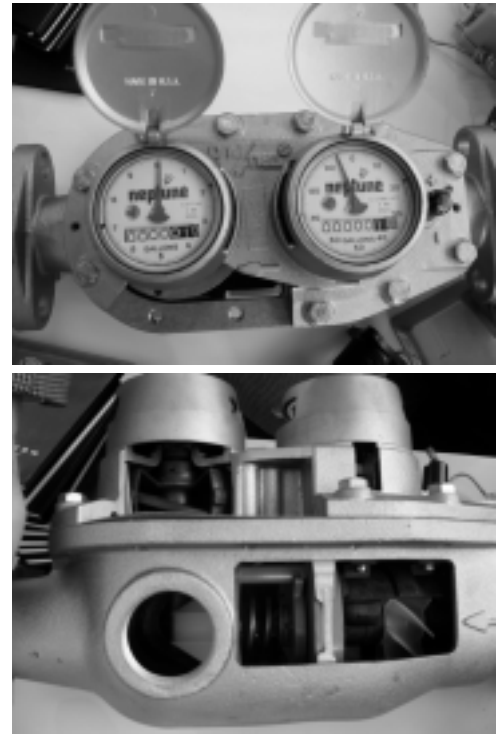
To Meter or not to Meter?

by Brenda Firestone

To meter or not to meter? That is just one topic discussed in the Environmental Training Center's new **"Water Meters: Types, Selection, and Testing"** workshop. Water meters provide an accurate account of each customer's water usage and insure that the proper fees are being assessed. They also provide information allowing a water utility to identify "water losses."

The workshop will discuss three types of water meters: positive displacement, current or velocity, and compound. The discussion will include meter construction, operation, and selection. Meter selection is usually based on a utility's experience, preference, and flow requirements. Examples of different types of meters and a cut-away will be available for viewing.

The bulk of the workshop will focus on water meter testing including reasons for testing, testing intervals, and factors that affect testing. Participants will perform hands-on bench testing of different types of water meters and determine meter accuracy. This workshop was developed by Conrad Decker and Andrew Mione, City of Harrisburg, Water Treatment Plant. For more information about the Water Meter Workshop, contact Brenda Firestone, 717-948-6538, blf3@psu.edu.



ETC students receive awards

During the 2003 Pennsylvania Section American Water Works Association meeting in May, graduate student Julia Saylor presented a paper, "Disinfection Byproduct Control in Four Small Water Systems in Pennsylvania," and received the second place student research award. Man-Yi Yeung, an undergraduate student, presented a paper, "Disinfection By-products Removal in Point-of-Use Carbon Filters," and received the fourth place student research award. Both projects were supported by the U.S. EPA. Julia also received a student scholarship from the Section.

Second Place

Julia B. Saylor, M.S. Candidate, Penn State Harrisburg

Advisers, Drs. Charles Cole and Yuefeng Xie

Disinfection Byproduct Control in Four Small Water Systems in Pennsylvania

Fourth Place

Man-Yi Yeung, Undergraduate Student, Penn State Harrisburg

Advisers, Drs. Charles Cole and Yuefeng Xie

Disinfection By-products Removal in Point-of-Use Carbon Filters

In addition to the student papers, Dr. Yuefeng Xie presented a paper, "Disinfection Byproduct Removal in Granular Activated Carbon Filters: A Field Study," at the meeting. This project was supported by the American Water Works Association Research Foundation.

Yuefeng Xie, PhD, P.E., Associate Professor and Center and Co-Director, Coauthor: Hongwei Wu
 Disinfection Byproduct Removal in Granular Activated Carbon Filters: A Field Study

Technology Tour

During the PA-AWWA conference, the Pittsburgh Water and Sewer Authority (PWSA) provided a technology tour of the 20 million-gallon-per-day membrane filtration plant. The membrane filtration plant was built as a result of a Pennsylvania Department of Environmental Protection mandate that required all open finished-water reservoirs be covered as an added security to public health. PWSA covered and replaced six open reservoirs, but met strong objection in covering the Highland Park Reservoir #1. The Highland Park Reservoir #1 has been an extremely popular destination for Pittsburgh residents and tourists visiting Highland Park for more than a century. Because of public objections, DEP allowed the PWSA to build a microfiltration plant to treat all of the water leaving the reservoir before entering the distribution system. In addition to the aesthetically pleasing building of the filtration plant (pictured at right), the Pittsburgh Water and Sewer Authority, the Pittsburg Park Conservancy (PPC) and the City of Pittsburgh built a state-of-the-art watercourse or “babbling brook” leading from the new microfiltration plant in Highland Park to Lake Carnegie. The manmade babbling brook was created to treat the wastewater leaving the plant. The process wastewater is composed of chlorinated water and high amounts of algae and other small pollutant particles removed by the membrane filters. When the chlorinated water is aerated (in this case by splashing over the boulders and rock and exposed to organic material such as the leaves caught in the rocks) the chlorine is removed. The project was paid for by the PWSA and the PPC, including a grant from the Eden Hall Foundation. The microfiltration plant, the largest of its kind, and babbling brook will serve as an international model which will continue to attract visitors from across the United States and the world.



Congratulations York Water Company

Congratulations to the York Water Authority for winning the 3rd Annual PA-AWWA Tapping Contest at the 2003 Annual Conference held at the Dave L. Lawrence Convention Center in Pittsburgh. The York Water Authority is competing nationally at the AWWA conference to be held in Anaheim, Calif., in June.



Jeffrey Hines, Chair of PAAWWA Board, is shown presenting the award to Mary Jackson, Mike Abaugh, Jim Snyder, and Greg Dittenhafer of the York Water Authority Team.

Moving On

by Keith Corson

After three years as a graduate assistant and working for the Environmental Training Center (ETC), I will be graduating this summer. It is now time to join the work force in the engineering field. The ETC has more than prepared me for my new position with Rummel, Klepper, & Kahl (RK&K) as a process and facilities design engineer. I will miss working with the ETC staff as they are like family to me, but look forward to working with RK&K.

While at the ETC, I developed the Chemical Feed Pump Workshop, Confined Space Safety Level I and Level II workshops. In addition, I have assisted in the development of many other ETC workshops. As an engineer, the hands-on maintenance skills I learned developing these workshops and working with highly skilled operations professionals will be valuable in my future. This experience has allowed me to have first-hand operations experience and a better understanding of problems that are encountered in the real world.

I enjoyed instructing the workshops that I developed. I learned a lot from the operators. RK&K's Allentown office has encouraged me to continue my involvement with the ETC. In September, I will be moving to Allentown and will continue acting as an instructor for the ETC in eastern and central Pennsylvania.

Upcoming Workshops

Confined Space Level 2	7 Contact Hours McKeesport WWTP	July 15, 2003 Tuesday
Water Analysis	11 Contact Hours Penn State Erie	July 22-23, 2003 Tuesday & Wednesday • 8:30 AM – 4:00 PM
Chemical Feed	7 Contact Hours Penn State University	August 7, 2003 Thursday • 8:00 AM – 4:00 PM
Introduction to Centrifugal Pump	10 Contact Hours Penn State Harrisburg	August 14-15, 2003 Thursday • 8:00 AM – 4:00 PM Friday • 7:45 AM – 12:15 PM
Water Analysis	11 Contact Hours Penn State Harrisburg	August 19-20, 2003 Tuesday & Wednesday • 8:30 AM – 4:00 PM
Water Analysis	11 Contact Hours Penn State University Park Treatment Plant	September 17-18, 2003 Wednesday, Thursday • 8:30 AM – 4:00 PM
Maryland Center for Environmental Training's Water Security Train-The Trainer (Triple T)	<i>Pending 12 Contact Hours</i> Penn State Harrisburg	October 6-7, 2003 Monday & Tuesday
Maryland Center for Environmental Training's Water Security Train-The Trainer (Triple T)	<i>Pending 12 Contact Hours</i> Penn State New Kensington	October 9-10, 2003 Thursday & Friday

For a current schedule, or for more information on our available workshops visit us at <http://www.hbg.psu.edu/spwstac/schedule.html> or <http://hbg.psu.edu/etc>.

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Environmental Training Center Course Developer

Proposed Job Description

Penn State Capital College is accepting applications for one or more Project Assistants for the Environmental Training Center with in the School of Science, Engineering and Technology at the Harrisburg campus. This person may work on projects funded through the Environmental Training Center by the Pennsylvania Department of Environmental Protection and U.S. Environmental Protection Agency. The work of the Environmental Training Center is primarily within the U.S. Environmental Protection Agency Region 3, comprised of Pennsylvania, Delaware, Maryland, Virginia, and West Virginia. Typical duties will include: designing, developing, testing, conducting, and evaluating water and wastewater operator training materials. The desired candidates will have a thorough knowledge of public water and wastewater treatment plant operation and training material development and delivery. Previous experience with operator training is advantageous. Requirements include a bachelor's degree or equivalent knowledge with 1 to 2 years of experience. A bachelor's degree in a technically related field and graduate adult education training is highly desirable. This is a fixed-term position funded from July 1, 2003 through June 30, 2004 with excellent possibility of re-funding. To apply, send two copies of a cover letter, resume and references to: Barbara Hundertmark, Penn State Capital College, 777 West Harrisburg Pike, Box TI, Middletown, PA 17057-4898. Applications will be accepted through July 15, 2003 or until the vacancy is filled. AA/EOE.

For more information contact Sue Hipple at 717-948-6358



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