



## Academy assists onsite wastewater training center directors in building better programs

by Laurie Klappauf  
NETCSC Contributing Writer

In a first of its kind "academy," directors of onsite wastewater training centers and programs practiced what they preach by helping each other learn how to build better programs.

The Academy for Onsite Training Program/Center Development, held March 4 to 6 in Weslaco, Texas, used a variety of training techniques, including a hands-on field visit, to help those either starting or already running a training center learn the nuts and bolts of running a quality program.

"I came away with a better understanding of how to run a program," says Kitt Farrell-Poe, who is using the knowledge and networking gained at the academy to complete a business plan this spring for a new onsite wastewater treatment education center in Arizona. An associate professor at the University of Arizona-Yuma, Farrell-Poe will be the faculty advisor for the new center. "We hope to have our first training this fall. It [the academy] certainly gave me a shot in the arm."

The event was organized by the National Environmental Training Center for Small Communities (NETCSC) and the Consortium of Institutes for Decentralized Wastewater Treatment. Other sponsors and cosponsors included the National Training Center for Land-Based Technology and Watershed Protection, numerous onsite wastewater training centers and programs, as well as NETCSC's "sister" organizations, the National Small Flows Clearinghouse and the National Onsite Demonstration Projects.

This workshop evolved to address, in a very focused way, some of the challenges facing the nascent onsite wastewater training field.

The number of new training programs/centers has grown from only a few in the early 1990s to more than two dozen today. These onsite wastewater training centers may provide training on everything from conventional septic systems to aerobic units to constructed wetlands. Audiences may include those who install systems, those who evaluate sites, regulators, real estate professionals, homeowners, and even schoolchildren.



Attendees of the Academy for Onsite Training Program/Center Development tour the South Texas On-Site Wastewater Treatment Training Center in Weslaco.

Those working in or entering the field need more information on how to run effective programs, make the most of existing

resources, and ensure long-term viability of their training programs. Many of these needs, particularly for training and resource sharing, had been voiced in a November 1997 meeting at NETC-

SC that brought together 22 of the nation's onsite wastewater training leaders. Similar issues, including the question of how to most efficiently provide quality curricula, have been echoed in ongoing discussions among members of the Consortium's Practitioner Training/Training Center Committee.

Both experienced center directors and people trying to start a center or program were invited to the academy.

"We not only wanted to help jumpstart new centers, but also share training approaches and materials for onsite wastewater," says Mike Hoover, Ph.D., director of the National Training Center for Land-Based Technology and Watershed Protection at North Carolina State University. Hoover helped launch the country's first onsite training center in North Carolina in 1990.

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Training Skills: Using graphics in PowerPoint® page 12



The National Environmental Training Center for Small Communities (NETCSC) is located at West Virginia University and was established in 1991 with funds from the U.S. Environmental Protection Agency.

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# E-train

## Intermountain states onsite symposium set

An "Intermountain States On-Site Wastewater Treatment Symposium" will be held July 27 to 29 at Utah State University in Logan. The symposium will bring together people from Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming to address onsite wastewater treatment issues in these states. The symposium will focus on:

- identifying resources and needs for onsite education, research, regulatory goals, and technology transfer;
- establishing a database of regulations, criteria, use, and performance of onsite treatment technologies in the region; and
- establishing a communication network among interested parties and developing opportunities for sharing information within these states.

The symposium will address areas of needs, opportunities for sharing information, identification of research areas, discussion of outreach activities in each state, and identification of regulatory status and regulatory goals of each state.

Mike Hoover, Ph.D., director of the National Training Center for Land-Based Technology and Watershed Protection and extension specialist at North Carolina State

University, will be the keynote speaker. Representatives from the National Environmental Training Center for Small Communities, the National Onsite Wastewater Recycling Association, the Consortium of Institutes for Decentralized Wastewater Treatment, the National Small Flows Clearinghouse, and the Northwest Onsite Wastewater Training Center will make presentations on their supporting roles in the onsite wastewater industry.

The symposium will use roundtable discussion panels with facilitative moderators to summarize onsite needs, issues, and proposals. It is anticipated that the symposium will result in a network of individuals throughout the targeted states for exchange of information and development of collaborative opportunities and a document that will summarize issues, needs, and potential roles of the interested parties and the status of onsite wastewater treatment in the region.

*For more information about the symposium, write to Steve Iverson, manager, Utah On-Site Wastewater Treatment Training Center, Utah Water Research Laboratory, Utah State University, Logan, Utah 84322-8200; call (435) 797-3159; fax (435) 797-3663; or send e-mail to [siverson@cc.usu.edu](mailto:siverson@cc.usu.edu).*

## NETCSC announces summer course offerings

The National Environmental Training Center for Small Communities (NETCSC) has announced its summer schedule of course offerings.

"Assessing Wastewater Options for Small Communities" will be held June 17 and 18 in Denver, Colorado, and July 8 and 9 in Morgantown, West Virginia. Cosponsors include St. Louis University, the National Onsite Demonstration Project, and the Colorado Environmental Health Association.

A course on water and wastewater training for local officials will be offered in Roanoke, Virginia, July 15 and 16. The course will draw materials from NETCSC's "Basics of Environmental Systems Management" training curriculum. The Southeast Rural Community Assistance Program is cosponsoring this event.

On July 17, NETCSC is joining with the Pennsylvania Rural Water Association to provide a pilot offering of the new "Managing a Drinking Water System" training curriculum in State College, Pennsylvania.

NETCSC also has received requests for additional deliveries of "Assessing Wastewater Options for Small Communities" training in Illinois and Minnesota. Further information will be provided in future issues of *E-train* as well as on NETCSC's Web site, which is located at [www.netc.wvu.edu](http://www.netc.wvu.edu).

*For more information about these courses or to register, write to Sandy Miller, NETCSC, West Virginia University, P.O. Box 6064, Morgantown, WV 26506-6064, call (800) 624-8301 or (304) 293-4191, extension 5536, or e-mail [smiller@wvu.edu](mailto:smiller@wvu.edu).*



## Three states approve NETCSC courses for CEUs

New York, Texas, and Oregon have approved courses offered by the National Environmental Training Center for Small Communities (NETCSC) for continuing education credit. The approved training courses include drinking water, wastewater, solid waste, and environmental management courses, which can be used in meeting training requirements associated with various state certification programs.

"Trainers and technical assistance providers in these states can now use NETCSC curricula and follow through with their state regulatory agency to have the courses accepted for credit," said John Hoornbeek, NETCSC training research associate. "We believe other states' regulatory agencies also may want to review NETCSC courses for potential use in their environmental certification programs."

The New York State Department of Environmental Conservation has approved the following courses:

- Industrial Pretreatment and Hazardous Material Recognition for Small Communities,
- Onsite Wastewater System Operation and Maintenance (for Operator Trainers),
- Assessing Wastewater Options for Small Communities,
- Basics of Environmental Systems Management for Local Officials, and
- Pieces of the Small Community Puzzle: Working Effectively in Small Communities on Environmental Projects.

The Texas Natural Resource Conservation Commission has approved six NETCSC training courses:

- Communicating Drinking Water Issues,
- Onsite Wastewater System Operation and Maintenance (for Operator Trainers),
- Assessing Wastewater Operations for Small Communities,
- Economics and Marketing of Recyclables for Small Communities,
- Managing Groups and Conflict for Solid Waste Officials, and
- Reducing Commercial and Industrial Solid Waste (for Small Community Solid Waste Managers).

The Oregon Environmental Services Advisory Council has approved these courses:

- Communicating Drinking Water Issues,
- Assessing Wastewater Options for Small Communities,
- Basics of Environmental Systems Management for Local Officials,
- Industrial Pretreatment and Hazardous

- Material Recognition for Small Communities,
- Onsite Wastewater System Operation and Maintenance (for Operator Trainers),
- Pieces of the Small Community Puzzle: Working Effectively in Small Communities on Environmental Projects,
- Understanding Small Community Dynamics and Financial Management,
- Economics and Marketing of Recyclables for Small Communities,
- Managing Groups and Conflict for Solid Waste Officials,
- Planning Solid Waste Management Options, and
- Reducing Commercial and Industrial Solid Waste (for Small Community Solid Waste Managers).

*Other state regulatory agencies interested in reviewing NETCSC courses for potential approval for state use should call Hoornbeek or Mary Alice Dunn at NETCSC at (800) 624-8301 or (304) 293-4191.*

### NETCSC revises curriculum

The National Environmental Training Center for Small Communities (NETCSC) has revised and updated its popular training curriculum, "Assessing Wastewater Options for Small Communities."

This course helps to empower local officials by informing them on how to assess their wastewater needs, select technologies, and finance the options. The course provides guidance on how communities can work with consulting engineers; it also provides an overview of how to maintain a viable wastewater system.

First offered by NETCSC in 1995, the course has been updated and new material added. "We learned ways to make the course better. We've added appendices, expanded the assessment information, and upgraded the transparency masters," said John Hoornbeek, NETCSC training research associate.

The eight modules in the course include: introduction to wastewater, the facility development process, viability and assessment, regulatory requirements, the consulting engineer, selection of wastewater technologies, financing options, and project commitment.

Appendices include overhead transparency masters, assessment instruments, wastewater technology summaries, technology and finance quick reference sheets, and a listing of additional resources.

*To purchase "Assessing Wastewater Options for Small Communities," call NETCSC at (800) 624-8301 or (304) 293-4191. Cost is \$52; request Item #TRTPCD06.*

## New onsite group aims services toward installers, manufacturers

A new group is taking aim at the onsite industry. The Association for Installers and Manufacturers (AIM) is focusing its efforts toward this often overlooked segment of the onsite industry.

“There are lots of national organizations for special segments of the onsite industry, such as pumpers, academicians, and sanitarians,” says Theo Terry, founding president of AIM. “We decided to address the needs of installers and manufacturers and build bridges to connect them with the other groups that are out there.”

Founded January 15, 1999, AIM already has 500 members and Terry expects membership to hit 1,000 by July. The national association provides conference, educational, and local association organizational management services to the onsite wastewater industry focusing on the needs of installers and manufacturers.

According to an AIM fact sheet, the purpose of the association is to:

- promote membership in the local onsite association;
- provide management and consultant services to local associations and training centers;



- provide practical educational programs designed for training installers;
- provide the opportunity for national manufacturers to educate installers about the correct use and application of their onsite products;
- provide installers and national manufacturers a forum to address issues and concerns specifically related to their interests; and
- promote cooperation with other national onsite wastewater associations and resources organizations.

Terry says he has found that installers need information on topics such as how to expand their businesses, how to understand and meet local codes, and how to properly install and maintain conventional and advanced treatment systems.

“We help state groups with their newsletters and conferences. They can supply the articles and we will produce a full-color newsletter for them. We also work with states to organize regional conferences,” he says. Terry’s wife, Robin, serves as executive director of the non-profit group.

Another purpose of AIM is to support onsite training centers, says Terry. AIM works

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### Look for these upcoming AIM conferences:

**August 27–28**, Binghamton, New York

**September 10–11**, Fort Wayne, Indiana

**October 1–2**, Vicksburg, Mississippi

**November 19–20**, Warren, Ohio

## NETCSC sponsors installer training in WV

The National Environmental Training Center for Small Communities (NETCSC) is teaming with the West Virginia Bureau for Public Health to provide sewage system installer training in West Virginia.

“NETCSC and West Virginia University’s National Onsite Demonstration Project are helping West Virginia increase its capabilities in onsite wastewater management by assisting the state Bureau for Public Health in making improvements in its installer training,” said John Hoornbeek, NETCSC training research associate. “There is a need for improved installer training materials, and we hope to take what we are learning in West Virginia and apply it nationally.”

NETCSC is assisting the Bureau for Public Health in upgrading its Class II Installer Study Materials and providing support for training deliveries in the state.

Nineteen onsite wastewater professionals attended the first training session offered March 17 and 18 in Martinsburg. An additional session tentatively is scheduled for September in Morgantown. The two-day training course prepares sewage system installers to obtain their Class II installer certificate.

The training provides information on home aeration units, sand filters, low-pressure dosing systems, mound systems, constructed wetlands, pumps and dosing, as well as other systems and requirements. The Class II Installer Certification Examination is offered at the conclusion of the course.

*For more information, call Craig Mains at NETCSC at (800) 624-8301 or (304) 293-4191, extension 5583.*



## RCAP representatives travel to NETCSC

Representatives from the national office of the Rural Community Assistance Program (RCAP) recently visited with National Environmental Training Center for Small Communities (NETCSC) staff in Morgantown, West Virginia, to discuss assistance efforts for small communities.

RCAP representatives included Randolph A. Adams, Ph.D., the recently appointed executive director of the organization. Adams and his staff are visiting small community assistance organizations to affirm existing partnerships and create new ones.

### Working partners

“One of the most fruitful NETCSC partnerships is with RCAP,” says Richard Phalunas, NETCSC director.

According to Phalunas, RCAP regional staff has been instrumental in developing three NETCSC curriculum packages. The Midwest Assistance Program, RCAP’s northcentral regional office in New Prague, Minnesota, developed “Working Effectively in Small Communities on Environmental Projects;” the California-based Rural Community Assistance Corporation developed “Communicating Drinking Water Issues;” and the Great Lakes RCAP in Ohio was part of a team that worked with NETCSC to develop the “Basics of Environmental Management” course.

In addition to curriculum development, the RCAP regions have cosponsored eight NETCSC training programs and provided trainers for at least seven courses. “Their assistance has been critical to the success of these training efforts,” says Phalunas. “And, NETCSC is pleased to be able to assist the RCAP organizations too—more than 100 RCAP regional staff members have attended NETCSC courses over the last several years.”



*Richard Phalunas, Ed.D., NETCSC director*

### RCAP’s role

According to Adams, the backbone of RCAP’s network is its drinking water and wastewater programs. These onsite technical assistance and training programs send RCAP staff to help small communities deal with drinking water and wastewater issues. “Community size may range from 20 people to 10,000, but ninety percent of the communities RCAP works with are under 2,000,” says Adams.



*Randolph A. Adams, Ph.D., RCAP executive director*

RCAP’s “Technitrain” program helps more than 600 communities per year by training small system operators and managers and assisting with system finances, says Adams.

RCAP staff often help small communities learn how to work with state and federal regulatory agencies. “RCAP tries to build capacity. Because of the water and wastewater work communities have done, they have developed skills that allow them to expand into broader community initiatives, such as housing and economic development,” says Adams.

“Many of RCAP’s field staff have been with the organization for 10 to 15 years. This allows RCAP to enter a community and work as a liaison between the community and the regulatory agencies,” says Adams.

RCAP’s national office is located in Leesburg, Virginia.

“We look forward to working even more closely together to improve assistance and training available to small communities dealing with environmental infrastructure needs,” says Phalunas.

*For more information about RCAP’s activities, visit its Web site at [www.rcap.org](http://www.rcap.org) or write to RCAP, 722 East Market Street, Suite 105, Leesburg, Virginia 20176. You also may call (703) 771-8636 or (888) 321-7227, fax (703) 771-8753, or contact Adams via e-mail at [radams@rcap.org](mailto:radams@rcap.org).*

## New group aims services toward installers, manufacturers

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to muster the private financial and human resources of national manufacturers and local installers to support local and regional onsite training centers. AIM members are asked to take the “AIM Onsite Training Center Pledge” to provide onsite training centers with products and services at no charge. A list of members who have made this commitment will be

furnished to onsite training centers upon request, says Terry.

AIM is sponsoring seven conferences in 1999. Conferences have already been held in Kentucky, Georgia, and Missouri to introduce the association to the industry. (See box on page 4 for a listing of upcoming AIM conferences.)

*For more information about AIM, call (270) 369-9836; fax (270) 369-9647; or send e-mail to [aimonsite@aol.com](mailto:aimonsite@aol.com).*

# NODP seeks to promote onsite management systems

by Jill A. Ross  
Acting E-train Editor



A new U.S. Environmental Protection Agency (EPA) project is working to promote the use of onsite wastewater management systems to ensure public health, improve water quality, and assist small communities in planning for sustainable growth. The National Onsite Demonstration Project (NODP) began in October 1998 and is well on its way toward ensuring that onsite management systems are the wave of the future.

"The goal of this NODP is to raise awareness among local officials about the importance of managing onsite systems," says John Mori, Ph.D., manager of West Virginia University's Environmental Services and Training Division, which oversees the NODP. "We will be developing educational materials and training about management systems that will assist local officials."

Mori says the program plans to develop a "smorgasboard" of models for management systems, such as private sector management or utility management, that local officials can choose from to find the best solutions to their individual situations.

A set of workshops about onsite management systems also will be held around the country. The National Environmental Training Center for Small Communities will be involved in the training effort, and Mori hopes that other technical assistance and wastewater groups will be involved in the training to advance the onsite industry and help small communities.

According to Mori, one of the strengths of the NODP is the expert panel that has been assembled to work with the NODP. "Our expert panel includes the people who are the most experienced with onsite wastewater management systems in the country," says Mori. "Each one of them has been directly involved in creating management entities, and they are all very energetic and excited about this project." (See box on page 7.)

The expert panel will serve as a resource to small communities throughout the country considering or developing onsite management systems. Panel members also will be involved in the ongoing development of case studies relating to existing onsite management activities.

Graham Knowles, interim program coordinator for the NODP, is busy researching existing wastewater management systems and developing a national database. "We hope to have information on every onsite management system in the U.S." says Knowles.

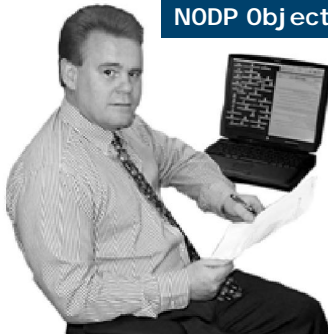
He also is gathering information for a national repository relating to onsite management systems. A series of in-depth case studies that address various approaches for onsite wastewater management will be generated for inclusion in the national repository, he says.

Knowles also has been developing a Web site for the NODP. Located at [www.nsf.wvu.edu](http://www.nsf.wvu.edu), "the purpose of the site is to acquaint people with the concept of management systems," he says.

The site features what Knowles calls "Septic Stats," a statistical database that has been compiled as a resource for local officials and others to use to "see where we are now in relation to where we might want to be in the future." For example, local officials can find

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Graham Knowles,  
NODP interim pro-  
gram coordinator



## NODP Objectives

Objectives of the National Onsite Demonstration Program include:

- identify and locate existing onsite management systems in the U.S.
- generate case studies showing different management approaches
- provide resources to assist communities in conducting a "gap analysis" between their current reality and future options for onsite management systems
- develop a framework to include existing models and accommodate new models of management
- assist proactive communities in developing and implementing management systems
- establish a "tool kit" of onsite management resources, ranging from managerial approaches and model ordinances to technical support
- create multi-media materials to assist small communities in developing onsite management systems
- establish partnerships with national organizations to deliver onsite management training to interested local audiences
- establish a mentoring program to link communities with onsite management systems with communities interested in developing onsite management systems



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out how many onsite systems are in their counties by clicking on a map of their state along with other valuable information.

Included on the Web site is a PowerPoint® presentation that provides a holistic overview of the onsite status in the U.S. as well as

possible scenarios for the future, says Knowles.

*If you are aware of an onsite management system that is currently operating and should be listed in the national database or have information about management systems that can be included in the national repository, please contact Knowles at (800) 624-8301 or (304) 293-4191, extension 5573.*

## National Onsite Demonstration Project Expert Panel

**William Bliss** is township supervisor for Wabedo Township in Cass County, Minnesota, and serves on the board of directors of the Minnesota Association of Townships. He has actively been involved at the grassroots level in establishing onsite management systems in Minnesota.

**Bridget Chard** is a small communities project coordinator from Brainerd, Minnesota. She is a member of the Minnesota Planning Association and a trainer with the Minnesota Association of Townships. Since 1994, she has been working with townships, counties, and rural utility services in Minnesota and Wisconsin to execute a new water/wastewater management approach known as "Environmental Subordinate Service Districts."

**Marie Davis** has served as general manager of the Georgetown Divide Public Utility District in California since 1994. As a soil scientist, she has investigated soils in the Auburn Lake Trails Onsite Wastewater Disposal Zone and has an earth science consulting firm that is active in mapping soil in and around Grand Canyon National Park.

**David Lenning** is director of the Northwest Onsite Wastewater Training Center in Washington and a member of the National Onsite Wastewater Recycling Association's board of directors. He has extensive experience with enabling onsite management entities.

**Karen McBride** is an environmental field specialist with the Rural Community Assistance Corporation in California. She

previously served as manager of onsite systems for Sea Ranch in California.

**Karen Mancl, Ph.D.**, is professor of food, agricultural and biological engineering and an Extension Service water quality specialist at

The Ohio State University. She conducts educational programs on onsite and small community wastewater treatment for local officials, contractors, designers, and regulators. She helped to establish a wastewater management district at Lake Panorama, Iowa, and has published dozens of articles and manuals on wastewater treatment and management.

**Richard Rose, P.E., Ph.D.**, is a project engineer with the Construction Programs Bureau of the New Mexico

Environment Department and has been actively involved in the enabling of onsite management systems in New Mexico. He earned his doctorate in 1997 with the dissertation, *The Establishment of On-site Wastewater Management Districts as a Means of Reducing Groundwater Pollution in Rural New Mexico.*

**Jane Schautz** is vice president of the Rensselaerville Institute and director of its Small Towns Environment Program (STEP). A nationally recognized authority on helping small towns in need of affordable water and wastewater treatment, she works with state government agencies and local communities to solve urgent infrastructure problems with money-saving self-help strategies. She has worked on hundreds of local projects, helped communities set up onsite wastewater management systems, and authored numerous publications.



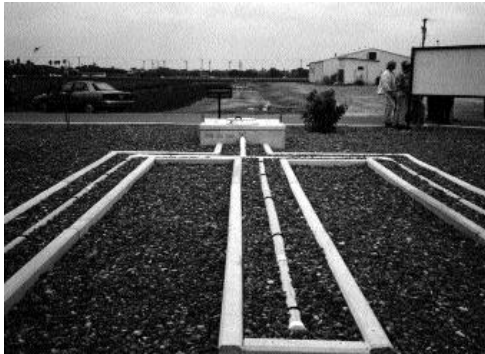
*NODP expert panel members include: (front row) Marie Davis, Karen McBride, Karen Mancl, Ph.D., Jane Schautz; (back row) Bridget Chard, David Lenning, and Richard Rose, P.E., Ph.D. Absent from photo is William Bliss.*

# Academy assists onsite wastewater training center directors in building better programs

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Academy topics included, among other things, training center startup strategies, getting funding and partners, and techniques for training adults, as well as examples of physical layouts, displays, and education exhibits.

"If training centers for onsite wastewater systems are going to be viable entities, we really need to be working together jointly and



*Academy attendees saw various onsite wastewater treatment technologies working above ground, such as this soil absorption system, during a tour of the South Texas On-Site Wastewater Treatment Training Center.*

cooperatively like this to share resources," says David Lenning, who served as a catalyst behind the academy. He is the director of the Northwest Onsite Wastewater Training Center, which also helped sponsor the academy.

Many view the collaboration between the Consortium and NETCSC—two key players in the onsite wastewater training field—as critical.

"The academy represents the first time the Consortium and NETCSC stepped to the plate together, and what they produced together was much better than what either could have produced alone," says Hoover, who is also a professor of soil science and soils specialist with the North Carolina Cooperative Extension Service. "It was a win-win venture," adds NETCSC Director, Richard Phalunas, Ed.D.

## Unique forum enhances learning

One unique result of this collaboration was an agenda that used a wide range of adult education techniques—to show some of the "how's" of training—while providing technical and managerial savvy from some of the nation's top onsite wastewater training experts.

"We integrated completely adult education principles into the discussions, so we illustrated principles using known adult education strategies. In almost every session we used a different training technique, such as lecture, small group break-out, a forum, or hands-on approach," says Hoover. Each session's technique was briefly introduced by West Virginia University professor Gary Wingenbach, a specialist in adult education. He also led wrap-up summaries afterward, which were particularly valuable to those unfamiliar with adult education methods.

"Adult education is different from teach-

ing undergrads," notes Lenning, pointing to the more visual, practical approach often needed to hold the attention of contractors, operators, and other "hands-on" practitioners.

"The techniques were useful in demonstrating how to take traditional boring lecture material and make it more interesting," says Farrell-Poe.

Participants also received a first-hand look at a functioning training center by visiting the South Texas On-Site Wastewater Treatment Training Center in Weslaco. An important element of many of these centers is that they take the technology—such as a septic system—physically out of the ground for all to see. "It takes the mystery out of it," says Hoover. "People can see and understand how the technology functions." He added, "Bruce Lesikar, John Drawe, Ralph Morgan, and the rest of the folks who run the South Texas Center did a superb job organizing the local logistics for the

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## Special training center workshop set

"An Insider's View of On-Site Wastewater Training" will be held August 30 at the National Training Center for Land-Based Technology and Watershed Protection at North Carolina State University in Raleigh, North Carolina.

This special train-the-trainer workshop is designed to help training centers deliver improved onsite system training, enhance their training centers, and make their programs financially self-sufficient.

"This workshop will focus on training program development, marketing, and management. It will provide training materials for onsite wastewater professionals from North Carolina's Soils and On-Site Wastewater Training Academy and serve as a training center 'How to Primer,'" says Mike Hoover, Ph.D., training center director.

The workshop will include a special insider's tour of the North Carolina training center and is being held in conjunction with the annual Subsurface System Operator Training School.

The National Environmental Training Center for Small Communities (NETCSC) and the Consortium of Institutes for Decentralized Wastewater Treatment are cosponsoring the workshop.

NETCSC has developed an operator's manual, trainer's guide, and trainer's resource package, which includes more than 400 slides and overhead transparencies, for operator training that will be available to workshop participants at a special reduced price.

For more information, contact Joni Tanner at (919) 513-1678 or [joni\\_tanner@ncsu.edu](mailto:joni_tanner@ncsu.edu).



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academy.”

### Plato’s methods reap success

Why was the event called an academy? “A dictionary definition of academy might read ‘a collection of scholars,’ and the term academy has Greek roots: Plato walked the grounds of land-owner Academos in discourse with his students,” explains Phalunas.

In this case, the scholars were onsite training program directors, and the discourse included “case studies as an instructional technique,” “training center models,” and “adult education techniques to keep the audience coming back.”

Was the academy a success? A clear “yes” came from all interviewed for this story. “This was well organized,” says Farrell-Poe. “I thought it was well-run and worth the time. For me, the networking was critical,” she adds,

emphasizing how willing and open people were to share their expertise.

“I think one of the key things that made the academy a success is that it was a joining together of hands of the Consortium and NETCSC and taking full measure of the resources that both can provide,” says Hoover.

“It was successful, and we’ll start hopefully planning another forum again, maybe next winter,” says Lenning.

*For resources related to onsite wastewater training centers, see the box on this page. You also may contact NETCSC at (800) 624-8301 or (304) 293-4191 or visit NETCSC’s Web site at [www.netc.wvu.edu](http://www.netc.wvu.edu). For further information about the Consortium of Institutes for Decentralized Wastewater Treatment call (401) 874-4558 or visit the consortium’s Web site at [www.dal.ca/~cwrs/cdwt/index.html](http://www.dal.ca/~cwrs/cdwt/index.html).*

## Onsite wastewater training resources available

The following resources related to onsite wastewater training are available from the National Environmental Training Center for Small Communities. Call (800) 624-8301 or (304) 293-4191 to order.

- *Onsite Wastewater Training Directory* is a 30-page booklet that provides contact information for each of the 26 onsite wastewater treatment training centers and programs in the U.S. It includes information on what courses are offered, fee structures, audiences served, and what types of onsite treatment technologies are used at each training center or program.  
Item #TRBLGN18.....Free
- *Onsite Wastewater System Operation and Maintenance (for Operator Trainers)* is a course designed for environmental trainers, technical assistance providers, and wastewater professionals involved in onsite system operator training. It covers physical, chemical, and biological processes; operator responsibility; and operation and maintenance for onsite wastewater systems.  
Item #TRTPCD09/Complete package, 380 pages and 400 slides.....\$273  
Item #TRTGCD10/Operator and trainer’s guide, 271 pages.....\$43  
Item #TRPMCD11/Operator’s manual, 175 pages.....\$36  
Item #TRRPCD12/Trainer’s resource package, 109 pages.....\$241

The following resources related to onsite wastewater training are available from the National Small Flows Clearinghouse. Call (800) 624-8301 or (304) 293-4191 to order.

- *Wastewater Management in Unsewered Areas* is a 25-minute videotape that explains specific alternatives to the conventional septic tank/soil absorption system and onsite system management. These include recirculating sand filters, cluster soil absorption systems, and sand mounds.  
Item #FMVTMG01.....\$10
- *Sand Filter Technology* is a nine-minute video that discusses the advantages of sand filters over conventional treatment systems. It explains three types of sand filters: buried, open, and recirculating; and emphasizes design, operation and management, planning, and cost.  
Item #WWVTPE03.....\$10
- *Pipeline, Septic Tanks* issue, Summer 1995  
Item #SFPLNL02.....20 cents
- *Pipeline, Septic Tank Operation and Maintenance* issue, Fall 1995  
Item #SFPLNL03.....20 cents
- *Pipeline, Alternative Sewers* issue, Fall 1996  
Item #SFPLNL07.....20 cents
- *Pipeline, Sand Filters* issue, Summer 1997  
Item #SFPLNL10.....20 cents

# Academy grads, experts offer lessons

by Laurie Klappauf  
NETCSC Contributing Writer

The Academy for Onsite Training Program/Center Development, held in Weslaco, Texas, in early March brought together nearly 40 experts and practitioners in the onsite wastewater training field. (See article on page 1.) Together, they identified the following as some of the trends, needs, and lessons affecting onsite wastewater training centers.

## Onsite wastewater trends

**More training centers/programs.** The number of onsite wastewater training centers and programs is growing. They take a variety of shapes, and many are affiliated with universities. Some of the early programs, such as those started 20 to 25 years ago in Wisconsin and Minnesota, have no physical “center,” but have developed curricula and take training courses to places that need them. The first full-fledged center, with a physical training site and “out-of-the-ground” demonstration technology, started in North Carolina in 1990, followed by Rhode Island’s center in 1993, and Washington’s in 1994. “More recently developed centers/programs have a great advantage—they can learn from the pioneering programs, selecting elements that match best the local needs and circumstances,” says Richard Phalunas, Ed.D., director of the National Environmental Training Center for Small Communities (NETCSC). “NETCSC has transferred successful models from one state to another in several cases, and coordinated start-up funding or training in others. Staff of the Consortium of Institutes for Decentralized Wastewater Treatment bring invaluable experience and expertise to developing programs.”

**Credibility as a viable wastewater alternative.** The growth in onsite wastewater training centers mirrors increased acceptance of onsite technologies as viable wastewater alternatives. People are realizing that “we need alternatives. We can’t sewer all sites,” says Jim Converse, a member of the Small Scale Waste Management Project at the University of Wisconsin. Some of these onsite alternatives, he notes, are being developed to enable economic growth in places where it was not previously feasible because of soil conditions or other factors.

“Onsite wastewater technology is no longer considered second-rate, just something you put into the ground while you wait for a

municipal sewer system to come along,” says George Loomis, director of the University of Rhode Island Onsite Wastewater Training Center. “It’s being seen as a long-term viable option, and that recognition is making the onsite wastewater field more credible.”

**Management of onsite systems.** Onsite wastewater systems can only be viable alternatives if they are *not* ignored. “People have to think of them as another utility to be managed, not just something that’s put in the ground to forget about,” says Loomis. Some local jurisdictions keep track of onsite wastewater and are moving toward managing them like other utilities. This trend will give rise to more audiences for training, since the need to manage these systems is going to require knowledgeable professionals.

**Emerging technologies.** “From a practitioner’s perspective, there’s a huge learning curve in emerging technologies,” says Loomis. “There’s something new hitting, say, every six months.” However, those doing installation and design are often too busy to keep up with all the new knowledge generated in the field, including new studies on existing technologies. “That’s where training centers can come into play,” Loomis continues. “They can separate fact from fallacy and get the worthwhile information to practitioners.”

## Training needs

**Resource sharing.** There’s a “resource shortage” in the onsite wastewater training field, according to David Lenning, director of the Northwest Onsite Wastewater Training Center in Washington state. “There’s now no formal way to share existing materials [among centers],” he says. But as people find ways to share their materials, they can minimize “reinventing the wheel,” he adds.

**Curricula at multiple levels.** “Very few two- and four-year educational institutions have formalized onsite wastewater education in their engineering and environmental science programs,” says Loomis, who is also chairman of the Consortium of Institutes for Decentralized Wastewater Treatment. In other words, those who end up working in the onsite wastewater field rarely receive more than one or two classroom lectures on the subject. As one of its priorities, the Consortium is pushing for more emphasis on onsite wastewater issues in graduate and undergraduate curricula.

New training centers and programs need

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“Onsite wastewater technology is no longer considered second-rate—just something you put into the ground while you wait for a municipal sewer system to come along.”

George Loomis,  
Director, University  
of Rhode Island  
Onsite Waste-  
water Training  
Center.



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access to quality curricula to get a good start. Existing centers often find they must offer expanded or more sophisticated courses to keep clientele coming back. But quality curricula are expensive and time-consuming to develop. "As more training centers develop, I think you're probably going to see a very strong movement toward standardized curricula," says Mike Hoover, director of the National Training Center for Land-Based Technology and Watershed Protection at North Carolina State University. Such courses would likely need modifications to account for variations in state and local regulations, geography, soils, geology, audiences, and other factors.

**Experienced trainers.** "Another issue as training centers become more popular is how to get more trainers," says Lenning. Quality training requires instructors who are well-versed in both the subject matter and training design and delivery. "We may have to have more 'train-the-trainer' courses," suggests Lenning.

**Research.** "Many training centers—and also state and county regulatory programs and manufacturers—have research program results that can be shared," says Loomis. "This information is needed for the field to grow." He says there are many needs in both applied and basic research to fill data gaps. The Consortium is involved in research forums taking place across the country to discuss research needs for the onsite wastewater field.

**Funding and long-term viability.** New centers in particular are concerned with how to pay expenses. Many are learning from their colleagues that getting "buy-ins"—such as donations of equipment or land—helps defray costs and gives others incentives to help make the center a success. In addition, all onsite wastewater training centers, new and existing, are looking at long-term viability, from funding to providing quality curricula to keeping a steady stream of paying clientele.

### Lessons, advice

**There are many ways to run an effective training program.** "It was useful to see the variety of onsite wastewater training programs, from demonstration-only training sites to a full-blown center," says Kitt Farrell-Poe, who attended the recent academy. She will be the faculty advisor for a new onsite wastewater treatment education center in Arizona. "It was nice to see that you could start with small facilities and not have to start with a full-fledged training center."

"There are some excellent training pro-

grams out there that don't have a physical site or out-of-ground technology," adds Hoover.

**Know your audiences.** "I like and appreciate the efforts some centers did to survey their customers' needs," says Farrell-Poe. Training center audiences can vary, but may include installers, designers, those who evaluate soils, pumpers, regulators, public health officials, government officials, real estate professionals, homeowners, manufacturers, and even grade school students.

Also, some states or counties require licenses for anyone doing onsite wastewater work, so they have something of a built-in clientele of people who must obtain continuing education units. Other states don't have any such certification or licensing requirements, so they have to "find" their clientele.

**Involve the industry and audiences from the beginning.** Centers and programs, especially those just starting up, need to "partner" with the wastewater industry and potential audiences. "I don't think you can do it on your own. You need to get buy-in from the private sector, get the wastewater sector involved from the ground floor so they'll see the value of the training center and use it," says Farrell-Poe. Lenning concurs that it's important to give those who will use the center opportunities to be involved. They can serve on the steering committee, help fix up the center, or donate equipment. "They will help market it," says Lenning, and this will help ensure long-term viability.

**Understand/use adult education techniques.** It's important to understand the training and learning needs of the audiences.

"Adult practitioners learn differently than undergrads," says Loomis. "They're more visual, hands-on. That's the way they function in the work world and that's the way we have to meet them." "Hands-on" training and viewing out-of-ground technology become particularly important so people can see what's physically happening.

**Plan.** "It's important to have a good proposal or business plan, so when you're seeking funding from any source, including government agencies and the private sector, they can see where you're going. They know your mission and objectives," says Farrell-Poe.

**Network, network, network.** "An important lesson for me was who's doing what and who to get in touch with for help," says Farrell-Poe. "Joining together with colleagues in neighboring states—sharing ideas and resources and learning from each other—can enhance what you want to do," says Hoover. "You need to talk about what worked and what didn't."

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"As more training centers develop, I think you're probably going to see a very strong movement toward standardized curricula."

*Mike Hoover, Ph.D.  
Director, National  
Training Center  
for Land-Based  
Technology and  
Watershed  
Protection*

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# Training Skills: Using graphics in PowerPoint®

by Susan Maczko  
NETCSC Promotions Editor

*Editor's Note: This is the second article in a series that explains how to use Microsoft PowerPoint®. The first article (see Winter 1999 E-train) explains the basics of using PowerPoint®. This article goes into more detail about the graphic capabilities of the program.*

Experienced presenters know that to keep an audience's attention, information must be visually stimulating as well as interesting. Fortunately, Microsoft PowerPoint® has many features to assist you in making a visually attractive presentation.

Graphics can assist you in getting your message across to the audience. Graphics include pictures, clip art, charts, tables, and shapes. Color and texture also can be used to add visual appeal. With PowerPoint® it is easy to add graphics to your presentation.

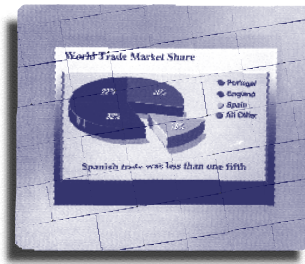
## Consider the graphics

When adding graphics to a presentation it is important to consider your audience (level of education, cultural norms, etc.), the purpose of the presentation, the type of information on the slide (e.g., numeric values or visual features), and the amount of disc space the graphics will require (clip art can use a lot of disc space). You will need to know where the graphics will come from—from other software programs or from an outside source (e.g., actual photographs) and in what format the graphics are in (PowerPoint® will accept JPEG, PNG, PICT, and GIF files). A chart or graph can be made using text in PowerPoint® or Microsoft Word®, while a picture or clip art will need to be imported from another source, such as Microsoft Clip Art Gallery® or a Web site.

The graphics you choose should help increase the audience's understanding of the material, which will help to retain their interest. Using graphics will help the presentation be more informative and look more professional.

## Preparing for graphics

Open the PowerPoint® presentation that you want to enhance with graphics and save it using a different file name. This keeps your original document in tact. When adding graphics, you will want to work in Slide View because it allows you to see the position, size, and location of the graphic on the slide



and how it looks in comparison to the text. When you begin, make sure the Scroll Bar is all the way at the top, so that you are viewing the first slide.

You may need to delete a background graphic such as a logo or line to allow room for the new graphics. Because a background graphic is part of

the Slide Master, it will show on all of the slides in the presentation. To delete any background graphics, click on "View" in the Menu Bar and then on "Master." Click on the graphic to highlight it, then delete it, and return to Slide View.

You also may delete the background graphic from only one slide if you want it to remain on the rest of the slides. Just scroll to the desired slide, click on "Format" in the Menu Bar, then on "Background." Choose "Omit background graphics from master," then click "Apply."

Often it is necessary to move some or all of the text on a slide to make room for the graphic. To rearrange the text, click on the text to select it. You will notice that small white blocks appear around the selected text—these are called Resize Handles. To change the location of the text, drag a Resize Handle and the text will move to the desired location. Usually the text is moved either all to the right or all to the left of the slide. You also can highlight the text and click the "Align Right" or "Align Left" button on the Tool Bar.

If the graphic is too large to include text on the slide, it is best to insert a new slide. In this case, just go to "Insert" and click on "New Slide." This is often necessary when inserting a pie chart or graph.

Sometimes it is necessary to add a new bulleted item to the slide, but too many bulleted items on one slide may not fit or the text will look crowded. It is possible with PowerPoint® to use a two-column design by using the "Slide Layout" feature. In Slide View scroll to the slide that needs to be edited. Then click on the "Slide Layout" button, click the type of layout you want to use, and click "Apply."

## Applying graphics

To insert a picture into a slide, select "Insert" from the Menu Bar, then "Picture," followed by "From File." Choose the file where your picture is stored and then click the

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“Insert” button. The picture is now on the slide, but probably not in the proper place. To move the picture, use the Resize Handles to drag it.

To insert clip art, click on the “Clip art” button in the Menu Bar or click on “Insert,” choose “Picture,” then “Clip art.” You can scroll through the choices until you find the image you want, then click “Insert” and the image is placed on your slide. To adjust the size, use the Resize Handles.

Multimedia elements such as music or a movie clip can be added to your presentation by using the “Movies and Sounds” command located in the “Insert” section of the Main Toolbar. When a sub-menu appears on the screen, click the desired command, such as “Play CD Audio Track,” and the “Play Options” dialog box will appear. PowerPoint® allows one or more tracks from a music CD to be loaded into your computer CD-ROM drive.

### **Making organization charts**

By using PowerPoint’s® “Organization Chart” template, it is quite easy to create an organization chart.

First, scroll to the location in your presentation where you want the organization chart to be placed, then click on the “New Slide” button in the Tool Bar, and choose a blank layout format. Next, click the “Insert” button, choose “Picture,” then “Organization Chart.” When you double click on the “Organization Chart” placeholder, the chart appears on the screen. You will notice that the top box is already highlighted and ready for you to begin typing. To move to the next box, just click on it. If more boxes are needed, click on the “Subordinate” button on the “Organization Chart” Tool Bar, then click within the actual chart and a new level will appear beneath the original boxes. You can repeat this step to add more levels. PowerPoint® also has a “Right Co-worker” button that allows a box to appear to the right of an existing box to show equality in the positions of the organization.

To add the chart to the slide, click “File” and then “Exit.” A dialog box will appear. Click “Yes” to add the chart to the new slide. The chart can be resized by using the Resize Handles to make it larger or smaller.

### **Using AutoShapes**

Another PowerPoint® graphic capability that is available and easy to use is the AutoShapes feature. It is a collection of ready-made shapes such as rectangles, triangles, connectors, lines, arrows, stars, callouts (to show

dialog), and action buttons. The shapes can be filled with a specific color, rotated or flipped, and text can be added.

To insert a shape into your presentation, scroll to the chosen slide. Click the “AutoShapes” list arrow on the Drawing Tool Bar and select the desired shape. You will notice that the cursor changes to a plus sign. Move the cursor to the position on the slide where you want the shape to be inserted. Press and hold the “Shift” key while clicking the mouse button and dragging the pointer. When the outline of the shape is the size you want, release the mouse. The shape can be adjusted by using the Resize Handles or it can be repositioned on the slide by selecting it and then dragging it to the new position.

PowerPoint® automatically fills the shape with a default color. To change the color, select the shape, click the “Fill Color” button on the Tool Bar, and click on your chosen color.

To rotate or flip the shape, select the shape, and click the “Draw” list arrow on the Drawing Tool Bar. Point the cursor to “Rotate” or “Flip,” then click in a blank area of the slide. Your shape should now be the color you want and in the position you placed it.

If you want to add text to the shape, you can with PowerPoint’s® “Text Box” button found on the Drawing Tool Bar. Just click the “Text Box” button, place the pointer on the slide where you want the text, and click. A small box is created for you to begin typing. If the text is not in the correct position, move it by dragging it where you want it. Repeat these steps for additional boxes as necessary.

You probably have noticed that the text is placed horizontally on the slide. If you want, the text can be rotated to fit the shape by selecting the “Text Box” you want to rotate. This will select the box and the Resize Handles will appear. Next, click the “Free Rotate” button on the Drawing Tool Bar. Small green circles appear, which show that the Rotate Handles instead of the Resize Handles are activated. Click in one of the green circles while holding down the “Shift” key. Then turn the Rotate Handle until it is in the desired position. Repeat these steps as necessary.

### **Finishing your presentation**

When you have finished making changes and inserting graphics in your presentation, remember to use Spell Checker and review the entire slide show before printing. Reviewing the presentation is important to make sure that the slides are satisfactory and that the presentation is clear and easy to understand.



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For free clip art graphics, check out these Web sites:

[www.freestuffcenter.com/graphics.html](http://www.freestuffcenter.com/graphics.html)

[www.spiderweb.com/images.html](http://www.spiderweb.com/images.html)

[www.fishnet/~gini/cool/](http://www.fishnet/~gini/cool/)

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## Web sites help keep trainers up-to-date

by Margaret Caigan McKenzie  
NETCSC Contributing Writer

As a trainer, you strive to relate information that is comprehensive yet concise, current yet proven, proactive yet relevant. You are the person many people look to for training solutions. We have found two Web sites that deliver a comprehensive collection of resources that will be helpful for you.

### Training Supersite

The Training Supersite, located at [www.trainingsupersite.com](http://www.trainingsupersite.com), invites you to comparison shop in its “mall of training information.” In this Web site you will find eight major “stores” to shop in.

The “training mall” section appeals to the professional trainer, manager, and individual interested in learning about training issues. You’ll find a virtual theater that shows clips of interviews from conferences and expositions and offers a 3-D video tour of the Web site. There also are databases of books, videos, magazines, newsletters, and audiotapes recommended by training experts and a guide to hundreds of suppliers and vendors.

In the “publication center” you’ll find an on-line newsstand filled with newsletters and magazines from Lakewood Publications (the creator of the Web site) as well as publications from associations and suppliers.

The “learning center” lists a variety of training opportunities to help you stay in the forefront of your field. Training opportunities include conferences, seminars, and on-line courseware.

In the “job bank” you will find job listings and a calculation to measure your salary against the salary of others in similar positions.

At the “trade center” you’ll find directories of speakers, consultants, and products and service suppliers.

The “community center” lists more than 250 internet training sites, a discussion board, association directory, and seminar and conference database.

The “tourist center” provides answers to frequently asked questions, marketing information, contact information for reaching the site’s webmaster, ratings for training sites, on-line training surveys, and a publications archive.

The “research center” catalogs an extensive list of publishers and producers by major



categories, including benchmarking, communication skills, conflict resolution, leadership, and presentations. Each category contains supporting resources such as books, videos, and software.

### TrainingNet

Another all-encompassing Web site, the TrainingNet site is located at [www.trainingnet.com](http://www.trainingnet.com). This site categorizes performance and productivity issues and then

subcategorizes the numerous resources for each of these issues.

For example, in the stress management category, you will find consulting services, courseware, manuals/policies/documentation, on-line learning, print-based performance support, products/services, seminars/workshops, software, training, videos, and writers/authors. Contact information is listed for each of these providers.

The “jobs” section allows you to view and add job listings and resumes.

The “Power RFI” (request for information) section includes an on-line form that you can complete to request a listing of solution providers. Within 24 hours, your request will be sent to all members of the TrainingNet solutions database.

The “downloads” section provides access to free samples of training software. Developers can follow the upload instructions to add their products here.

The “news” section includes current news stories relevant to the training industry and is updated daily.

For information about upcoming events or to advertise your own event, check out the “events” section.

This site also includes a “teleforum” section, which is a telephone conference call that allows you to interact with presenters from the convenience of your office or home. Using the teleforum does not require operator assistance, but you will pay the long distance phone charge for the hour. You select the session you want to attend, and TrainingNet will e-mail you the phone number you will be calling and confirmation of the time, date, and presentation you have chosen.

Previous teleforums have included “The Internet and Education,” “The Coming Distance Learning ‘El Nino’—Divert a Disaster,” “Tools of the Trade,” and “Team building and Trust Issues.”



## RTW Activated Sludge Troubleshooting Guide

*Developed by Rothberg, Tamburini, and Winsor, Inc.*

**Content:** This 25-page booklet and poster set was developed to assist operators and engineers in understanding and eliminating process control problems at activated sludge wastewater treatment plants. It helps the operator determine the potential cause of a problem and what control actions can be taken to eliminate the problem. A flow chart format leads the operator through a series of choices that identify 32 different conditions in four main categories.

**Use:** This chart could be used in-plant for process control or to teach a systematic approach to troubleshooting in an activated sludge training course.

**TRPKOM07** Booklet and poster, 1996.....\$49.50

**Contact:** National Environmental Training Center for Small Communities, West Virginia University, P.O. Box 6064, Morgantown, WV 26506-6064, call (800) 624-8301 or (304) 293-4191, fax (304) 293-3161, or e-mail [netc\\_orders@mail.estd.wvu.edu](mailto:netc_orders@mail.estd.wvu.edu).

## Designs for Adult Learning

*Developed by the American Society for Training and Development.*

**Content:** This book is a compilation of designs that the author, Malcolm S. Knowles, has used in his work with adult learners. It discusses conceptual foundations—the andragogical model versus the pedagogical model—and reviews the components of an andragogical approach to training.

**Use:** This training reference book provides strategies for the delivery of courses, workshops, and conference sessions to adult learners.

**ITEM #KNDA** 104-page book, 1995.....\$14.95  
ASTD members/\$20 non-members

**Contact:** ASTD Publishing Service, P.O. Box 4856 Hampden Station, Baltimore, MD 21211, call (800) 628-2783, fax (703) 683-1523.

## Distance Learning: A Step-by-Step Guide for Trainers

*Developed by the American Society for Training and Development.*

**Content:** This book, written by Karen Mantyla and J. Richard Gividen, is designed for training professionals who do not have an extensive technical background in distance learning. Topics discussed include interactive audio and video conferencing, computer-based training, and training. Templates, checklists, and other job aids are included for trainers to create and manage their own distance learning programs.

**Use:** This is a step-by-step guide for selecting the best distance learning technologies, exploring implementation strategies, and integrating distance learning into a training program.

**ITEM #MADL** 179-page book,  
1997.....\$34.95(ASTD members) \$45(non-members)

**Contact:** ASTD Publishing Service, P.O. Box 4856 Hampden Station, Baltimore, MD 21211, call (800) 628-2783, fax (703) 683-1523.

### New NETCSC catalog available

More than 100 helpful training resources are detailed in the new *Training Resources Catalog* now available from the National Environmental Training Center for Small Communities (NETCSC).

This 24-page catalog provides detailed descriptions of the current training packages, training aids, and training-related information available from NETCSC. Topic areas include training packages, NETCSC database searches, environmental management, drinking water, wastewater, solid waste, training, and adult education.

Information also is provided on the organization that developed the resource, year of publication, number of pages, type of product, item number, and price for each resource.

To request a free copy of the *Training Resources Catalog*, contact NETCSC at (800) 624-8301 or (304) 293-4191.

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State Organization

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Consultant/Engineer

Legal Profession

Press/Mass Media/Newsletter

Community

Private Citizen

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Drinking Water

Solid Waste

Training

Outreach

Regulations

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Nonpoint Source

Research

Finance

## NETCSC welcomes two new staff members

Two new staff members recently joined the National Environmental Training Center for Small Communities (NETCSC), bringing with them a vast array of experience.

Mary Alice Dunn joins NETCSC as a training specialist. Her chief responsibility is helping environmental trainers and other assistance providers improve drinking water, wastewater, and solid waste services in small communities with populations of less than 10,000.

"My specialty is responding to questions from callers needing information," said Dunn. "I also facilitate contacts between trainers and groups in need of a trainer."

As part of her duties, Dunn is coordinating training sessions related to wastewater. In addition, she is working with NETCSC's databases, which store information about activities, trainers, and other training resources.

Dunn has a master's degree in social work from West Virginia University (WVU) and professional experience in training for nonprofit organizations.

Susan Maczko is NETCSC's new writer/editor who specializes in promoting NETCSC's services, courses, and products.

Her duties include researching, writing, editing, designing, and proofreading information for NETCSC's catalogs, brochures, news releases, posters, and newsletters. She also updates NETCSC's Web site.

"I am pleased to have the opportunity to work with NETCSC," she said. "It will be especially rewarding to connect small communities to the services and information available at NETCSC."

Maczko has a bachelor of arts degree from WVU, specializing in creative writing.

Cut or copy this coupon and send it to the *E-train* editor at the address below or fax it to (304) 293-3161.



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