Technology for Creating Utility Training

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Disclaimer

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**Water Utility Training**

- Training as a Continuous Quality Improvement (CQI) tool has long been the foundation for Wisconsin’s Operator Certification Program.

- Operators continually strive to:
  - Keep up with technology and regulations
  - Improve skills
  - Ultimately safeguard the health and well-being of their customers

- 18 CEUs are required every 3 years to maintain waterworks operator’s license [NR114.07(b)]

**Training Challenges**

- State mandated spending caps have been burdensome to water utilities

- Caps have:
  - Resulted in more work for fewer operators
  - Made it difficult for operators to attend training and to obtain the necessary CEUs to maintain operator licenses (travel restrictions; political pressures, etc.)

- Challenge for water utilities and regulators:
  - Reduce burden
  - Provide other training options
Training Opportunities Available

- Wisconsin Rural Water Association:
  - Generally restricted to members
  - Classroom style and some individual
  - CEUs are generally issued based on DNR guidance

- Wisconsin Water Association
  - Generally in form of workshops, seminars and conferences
  - Classroom style training
  - CEUs are generally issued based on DNR guidance
  - Private companies or independent contractors
  - Classroom style training
  - CEUs are generally issued based on DNR guidance
  - Fee based training-added burden for utilities

- Independents

On-line Training Opportunities

Free, on-line training agencies & organization
- WI DNR-Small Water System Operator Training
- Montana Operator Basics Training Series (Montana State University-funded by EPA)
  - Generally do not offer CEUs

Fee-based, on-line training
- Companies such as CEU Plan
- Offer CEUs only when state approves training
  
  (Not aware of any currently approved by WI DNR)
• Variety of subjects
• Review section
• Self-test
• Link to detailed manual
• Outstanding resource
Promoting water to the public puts owners and operators under an ethical and legal obligation.

True

False

INCORRECT
People rely on water systems for safe drinking water that is of acceptable taste, odor, and appearance. This water is sometimes used to meet limited irrigation needs. Fire protection is needed at all times.

Montana State University Operator Training-continued

CEU Plan:

- Sold by the course.
- CEUs are only available in some states.
- Not approved in WI at this time.
Training Dilemma

- Operators often have difficulty attending enough classes to obtain the 18 CEUs needed to maintain license
- Problem is compounded by fiscal crunch and local political pressure
- What can water utility operators do?

Screaming doesn’t help!
Compromise Approach

- Work with regulators to develop a policy to allow a blend of classroom and on-line training to fulfill CEU requirements
- This option will help reduce the burden on water utilities
- On-line or distance learning is NOT a substitute for classroom style training...
  ..it’s a supplement

WSLH Approach

- The WSLH has recently acquired tools and technology to create distance learning training modules
- Received a grant from the APHL through the Minnesota Department of Health
- Developed a CD-ROM based training course for the determination of *E. coli* in beach water.
Features of WSLH Distance Learning Course

- CD or internet accessible
- Features a blend of video, traditional PowerPoint and graphics with full audio narration.
- Video may be paused, fast-forwarded and rewound so students can set their own pace
- Designed with input from professional partners (WSLH staff, WI DNR, Minnesota Department of Health, Wisconsin Public Television)

Features of WSLH Training Course-Continued

- Designed around program requirements (i.e., asked agency during planning stage versus asking for approval after the fact which is the process vendors often use)
- Secure self-test to verify comprehension
- Auto-loading CD-ROM offers option to (re)view training video or take test
- WSLH web administrators can generate secure report for submittal to regulators so CEUs may be issued to participants.
Tools used by the WSLH to produce the *E. coli* Training

- PowerPoint
- Sony “Vegas 6” video production software
- Sony “Sound Forge” audio production software
- Digital sound recording hardware
- Same tools may be used to produce training courses for water utility operators

Example of WSLH Training

*E. coli* Detection Using the Colilert® and Colilert-18 ® Enzyme Substrate Technique and the Automated MPN Method.

Training Presentation

On-Line Quiz

Problems with this training should be forwarded to George Bowman
Example of WSLH Training

*E. coli* Detection Using the Colilert® and Colilert-18 ® Enzyme Substrate Technique and the Automated MPN Method.

Training Presentation

On-Line Quiz

Problems with this training should be forwarded to George Bowman
Create a new username and password to log in with:
Username: G12
Password: ********

Please supply some information about yourself:
(Note: your email address must be a real one)
Email address: gtb@mail.slh.wisc.edu
Email (again): gtb@mail.slh.wisc.edu
First name: George
Surname: Bowman
City/town: Madison
Country: USA

Confirm your account
An email should have been sent to your address at gtboman@wisc.edu
It contains easy instructions to complete your registration.
If you continue to have difficulty, contact the site administrator.
Automatically notifies student via e-mail after registering

Program tracks how many times test attempted and all scores
E. coli Detection using the Colilert and Colilert-18 Enzyme Substrate Technology, Including the Automated MPN Method

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Instructions: You will have 20 minutes to complete the quiz. There are 10 questions. For each question, select the correct answer. Once you have answered all of the questions, click the link at the bottom to submit your answers. Your quiz will be automatically graded and you will be given a chance to review your graded quiz. You can take the quiz 3 times. The highest grade among the three attempts will be recorded. A grade of 70% is considered a passing grade.

Insert questions, answers and score here
Summary of WSLH Experience

- Technology can be used to produce training for water utility operators
- Training can be designed to meet needs of water utilities and regulators
- Can provide a supplement to classroom based training
- An effective training tool to reach those than cannot easily attend classes

Next Steps

- Meet with the DNR OpCert program coordinator; open a dialog regarding distance learning.
- Encourage WI DNR to develop guidelines that will allow CEUs for distance learning
- Seek input from stakeholders to determine training needs *(water utilities, DNR, EPA, and professional organizations)*
- Continue to seek funding to expand distance learning opportunities for Wisconsin water utilities
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