

**APPLICATION FOR APPROVAL OF
ALTERNATIVE TRAINING COURSE
FOR CONTINUING EDUCATION CREDIT**

ATTENTION: This application contains detailed information about Operator Basics. Your state's form may be different, and it is unlikely that what you will find here addresses all the issues involved with certification. If you require more information, please contact us. We provide this document in the hopes that it will meet your requirements, but understand that you might have forms that you are required to use. If this is the case, we will fully comply.

<p>1. NAME OF TRAINING COURSE: Operator Basics Training Series 2005: Surface & Ground Water Course</p>
<p>2. TRAINING PROVIDER:</p> <p>(a) Organization name: Montana Water Center</p> <p>(b) Contact Person: Ken Glynn</p> <p>(c) Mailing Address: 101 Huffman Building / Montana State University Bozeman Montana 59717-2690</p> <p>(d) Phone Number: 406-994-7862</p> <p>(e) Email address: watercenter@montana.edu</p>
<p>3. TYPE OF ALTERNATIVE TRAINING:</p> <p><input type="checkbox"/> a. Correspondence Course</p> <p><input checked="" type="checkbox"/> b. CD-ROM Training</p> <p><input checked="" type="checkbox"/> c. On-line Internet Training</p> <p><input type="checkbox"/> d. Video Based Training</p> <p><input checked="" type="checkbox"/> e. Other: Computer-based training – the same</p>

4. PLEASE ATTACH ALL OF THE FOLLOWING FOR THE TRAINING PRODUCT:

- a. Table of Contents
- b. Brief Summary of the Training Product
- c. Added an Activity Index that summarizes all the activities, and estimated completion time

5. LIST A MINIMUM OF THREE PEOPLE OF VARYING BACKGROUNDS ALONG WITH A SUMMARY OF THEIR CREDENTIALS, WHO HAVE REVIEWED THE PRODUCT. (ATTACH EXTRA SHEETS IF NEEDED)

Kevin Kundert, Training Director, Montana Water Center

BS, Earth Science (Hydrogeology), Montana State University, 1998
Water Treatment Plant Operator III, City of Helena, MT, 1984-1992
Certified Water Plant Operator, Class 1, water treatment and water distribution
Member - Montana State University Technology Assisted Instruction Advisory Group,
National Training Coalition, Montana Small Drinking Water Systems Technical
Assistance Center, National Environmental Training Center, American Water Works
Association, American Water Works Association (Montana Section) Education
Committee, Montana Environmental Training Center.

Gretchen L. Rupp, P.E, Director, Montana Water Center

MS, Civil and Environmental Engineering, Utah State University, 1981
BA, Biology, Carleton College, 1976, *cum laude*, with departmental honors
Professional Engineer, Montana, License 106 PE, 1990
Professional Civil Engineer, California, License C 38705, 1984
Member – American Society of Civil Engineers, American Water Works Association,
American Water Resources Association, American Society of Agricultural Engineers,
President of the National Institutes for Water Resources.

Barb Coffman, Environmental Trainer, Montana State University - Northern

Master of Education, General Science: Thesis Option, December 2001
Wastewater Treatment Plant Operator, Class 1C, City of Havre, MT, 2000–2004
Training/Development Specialist, Montana Environmental Training Center 1994-2000
Bachelor of Science, Interdisciplinary Studies: Chemistry Concentration, 1993
Bachelor of Science, Interdisciplinary Studies: Water Quality Concentration, 1993
Associate of Science, Environmental Health: Water Quality Technology, 1991
Member - American Backflow Prevention Association, Montana Continuing Education
Credit Review Committee, Montana Section American Water Works Association,
Montana Bureau of Mines and Geology, Montana Academy of Sciences

6. SPECIFY THE NUMBER OF CONTACT HOURS FOR THE COURSE

Surface & Ground Water Systems - 13 hours (Reading 6.5 hours, Activities 6.5 hours)

Unit 1: 0.4 hours (Reading 0.2 hours, Activities 0.2 hours)

Unit 2: 2.4 hours (Reading 1.2 hours, Activities 1.2 hours)

Unit 3: 2.6 hours (Reading 1.4 hours, Activities 1.2 hours)

Unit 4: 2.1 hours (Reading 1.1 hours, Activities 1 hour)

Unit 5: 1.8 hours (Reading 0.8 hours, Activities 1 hour)

Unit 6: 1.5 hours (Reading 0.7 hours, Activities 0.8 hours)

Unit 7: 2.2 hours (Reading 1.1 hours, Activities 1.1 hours)

7. HOW ARE CONTACT HOURS TRACKED?

a) How does it track the person registered? An electronic log book tracks progress and is printed out after each learning session.

b) How long did it take each person to complete the course? Each person on the multimedia development team worked through the training at a moderate pace. The intention was to simulate the pace of a user with a ninth or tenth grade education level. The times were averaged and then tested on the target audience of small system operators in 2002. In most cases the original times allotted were close. Adjustments were made in those found to be off by fifteen to thirty seconds. Both the estimated time and the actual user reading time are recorded in the log book.

8. WHAT ARE THE SECURITY PROCEDURES?

(a) Is there a person registered who will proctor the student taking the course? No. This is a self-directed course using modern multimedia tools to present information in an innovative, interactive model. It has proven to be both popular and effective. Answers cannot be determined by reviewing system files.

(b) Is there an automated way for this to be tracked? Yes.

If so, how? Every activity built into the course is automatically registered in the electronic log book.

9. WHAT ARE THE MONITORING PROCEDURES?

(a) Who will track the CEC's? The log book will track CEC's as described above.

(b) How will this tracking be done? The log book is automatically updated each time a user completes an activity. Activities pose questions to students, and their answers are logged by percentage correct and show the actual time assigned to complete that activity. The log also shows how much time the user required to finish an activity, but this time is reference only and does not translate into training hours. The assigned times for each activity were arrived at by the development team. See answer #7 above.

10. WHAT ARE THE TESTING PROCEDURES?

(a) What are the testing procedures? Information is first presented to the student in text, images and animations. The student/user is then asked a series of questions pertaining to that content. The answers are not revealed until a user submits his or her answer and immediate feedback indicates correct or incorrect and learning is reinforced by showing the correct answers. Answers may be true or false, or multiple choice, often with more than one answer that is correct. A user must identify all correct answers in a multiple choice, while not choosing any incorrect answers to obtain credit as being correct in the log. The program provides a wide variety of ways a user must submit the answers, for example, “Check All That Apply,” “Target Range,” “Drag and Drop” and others.

(b) Are there any time limits? To view the time credit allotted for a section or activity, a user can simply mouse-over that section’s location in the navigational guide on the left side of the screen. While a user is allowed to take as long as needed for a given activity, the user is only assigned credit for the predetermined allotted times. The allotted times range from thirty seconds to more than six minutes.

(c) Are there any retake limits? The program allows users to retake any unit or activity as many times as desired. However, each attempt is logged and the score is a running average of all attempts.

(d) Is the course proctored? No.

(e) Where is the test taken? Among the many benefits of Operator Basics training is that it can be taken any time, anywhere on a small water system’s computer, the user’s home computer, or any available computer that has a CD-ROM drive or an internet connection.

(f) Can quizzes be taken before training is complete? Yes. Users gain credit for doing activities, which quiz them on the study content. Actual time from beginning to end of training can be used to determine how much time may have been spent reviewing the content.

11. QUALIFICATIONS OF TRAINING DESIGNERS:

Please see the attached Curriculum Vitaes (CV’s).

12. DESCRIPTION OF OTHER RESOURCES AVAILABLE: The training is available in multiple formats ... as a CD-ROM, PDF, or a downloadable program that can be run locally from a user's computer. The program can also run as an online course, without the need to install any software on the user's computer.

All formats with the exception of CD-ROM are available on our website <http://watercenter.montana.edu/training/ob2005/default.htm>).

A free CD-ROM may be ordered through the National Environmental Services Center at 800-624-8301 or on their website http://www.nesc.wvu.edu/ndwc/ndwc_index.htm. Refer to product #DWCDTR18. Shipping is free through the NESC.

Operator Basics also provides a list of national resources, including organization names, contact person, address phone number, email and website. Email and websites listed are hot links, allowing users with internet connectivity to send an email or visit a website immediately by clicking on the hyperlink.

13. HAVE OTHER STATES APPROVED THIS COURSE?

Our records indicate that these states have approved the use of Operator Basics as a distance education course: Alabama, Arizona, Colorado, Delaware, Idaho, Illinois, Indiana, Missouri, Montana, Nevada, New Mexico, New York, Ohio, Oregon, Utah, Virginia, and West Virginia.

If your state appears on this list, please contact the Montana Water Center to confirm which version of Operator Basics is used for continuing education. Other states are presently evaluating the training, and giving strong indications favoring approval.

14. ALTERNATIVE TRAINING COURSE FEE? Operator Basics is available free of charge (while supply lasts) through the National Drinking Water Clearinghouse or our training website. Multiple users can use the program online, and they are free to make copies of the CD-ROM using a personal computer.

15. PREREQUISITES REQUIRED FOR TAKING THIS COURSE: None.

Hardware required: One must have a computer, the software and a printer to take the course and print out the log book to provide evidence of course work. The minimum system requirements for computers running Operator Basics 2005 are as follows: 300 MHz Intel Pentium II processor or equivalent, Macintosh G3 or higher, with 800x600 resolution 16-bit color display, and 64 MB RAM.

Experience needed: Basic computer skills. Many operators successfully used this training even though it was their first time using a computer!

Education needed: Must be able to read and follow instructions.

16. PLEASE CHECK ALL APPROPRIATE TYPES OF OPERATORS THAT COURSE WILL BE APPLICABLE. (Inform operators at registration which types of certifications will receive CEC's).

- a. Water Distribution Operators
- b. Water Treatment Operators
- c. Well Water Supply Operators
- d. Wastewater Treatment Plant Operators
- e. Wastewater Lagoon Operators
- f. All Levels of Certified Operators

17. IS THIS A DUAL CEC COURSE? No.

18. PERSON AUTHORIZED TO MONITOR AND VERIFY ATTENDANCE OR COURSE COMPLETION: The Certification Board for each state is responsible for verification, using a print out of the log book for each operator.