

Guideline Title: ‘Director Approved’ Continuing Education Training Requirements

PURPOSE:

To provide the criteria for what constitutes ‘Director Approved’ continuing education training for purpose of complying with the training requirements in the *Certification of Drinking Water System Operators and Water Quality Analysts* regulation, O. Reg. 128/04. The underlying principle of training is to enhance operator competency.

Training Requirement

Under O. Reg. 128/04, drinking water operators and water quality analysts (WQA) must complete Director Approved Continuing Education training.

This training requirement must be met in order for an operator or WQA to be able to renew their certificate. The training may be averaged over the three year certificate period. The Director Approved Continuing Education training requirement ranges from 21 to 42 continuing education units (CEUs), depending on the certificate type and level.

For the purposes of calculating education or training obtained through continuing education, one (1) CEU equals ten (10) hours of training.

The following table summarizes the annual Director Approved training requirements and the total Director Approved training required per certificate life cycle (three years).

Type and Class of Subsystem Where the Operator is Employed	Annual Director Approved Hours (Continuing Education Requirement)	Director Approved Hours (Continuing Education Requirement Per 3 Year Certificate Life Cycle)
Limited Groundwater or Limited Surface Water	7	21
Class I Water Treatment or Class I Distribution or Class I Distribution and Supply	7	21
Class II Water Treatment or Class II Distribution or Class II Distribution and Supply	12	36
Class III Water Treatment or Class III Distribution or Class III Distribution and Supply	14	42
Class IV Water Treatment or Class IV Supply	14	42
Water Quality Analyst	7	21

GUIDELINE NO: 4.2***Drinking Water Operator/Water Quality Analyst Certification******January 2005******Revised June 2010*****CRITERIA**

As provided under O. Reg. 128/04, to be considered for certificate renewal, the continuing education must be 'Director Approved' training. Training that meets the following criteria will be recognized as 'Director Approved' training:

Is a structured course¹ that involves contact between the learner and training provider. Contact implies two way communication such as:

- instructor provides feedback to participant in the form of answers to questions and/or comment on assignments, etc; and
- instructor monitors/evaluates the participant's progress.

Such training could include classroom training, or distance learning such as a correspondence and computer-based or web-based courses.

Has documented learning objectives: The training course should contain learning objectives which state explicitly what participants will learn and/or be able to do as a result of completing the course.

Include a means to verify that the participant has learned the material covered in the course. This could include performance demonstrations under real or simulated conditions, written or oral examinations, written reports, completion of a project, or self-assessment.

Include a course evaluation form, acceptable to the Ministry, to be completed by each participant at the end of the course. Such course evaluation must be anonymous both by not having the participant identified and in how it is collected. The form should solicit feedback on both the course and the instructor.

Is planned and provided by a qualified training provider. A training provider is the organization responsible for the design and/or delivery of the continuing education course. A training provider can be an educational institution, public utilities commission (PUC), municipality, a public or non-profit training organization, and/or an individual.

For the purpose of 'Director Approved' continuing education training, to be considered qualified to design the course the training provider must, either through education, training or experience, have knowledge of how to develop lesson plans and structure the training appropriate to the course subject matter and audience. Specifically, the training provider must meet one of the following criteria:

¹ Course in this context means a series of lectures, instructions, or lessons on a particular subject.

GUIDELINE NO: 4.2***Drinking Water Operator/Water Quality Analyst Certification******January 2005******Revised June 2010***

- have received formal education in ‘adult education’ as evidenced by a diploma or certificate;
- have received structured training in designing/organizing training from an expert holding an adult education certificate; or
- is able to demonstrate to the satisfaction of the Director an ability to design curriculum/training programs e.g. through sample curriculums or training programs, student evaluations of training program/course, experience designing training.

For the purpose of ‘Director Approved’ continuing education training, to be considered qualified to deliver the training, the training provider must meet one of the following criteria:

- have at least one (1) year of experience as a full-time² instructor;
- have at least three (3) years of experience as a part-time³ instructor;
- have at least three (3) years of experience directly relevant to the subject matter being taught;
- if training operators – have at least three (3) years of experience working in the drinking-water industry as an operator-in-charge or overall responsible operator in a facility at a level equal to or greater than the level of operator certificate for which the training is intended;
- if training water quality analysts – have at least three (3) years of experience working in a laboratory as a supervisor directing staff on how to test drinking water for various contaminants;
- have been formally trained or educated on the subject matter being covered; or
- other qualifications acceptable to the Director

² ‘full-time’ means training preparation and delivery takes approximately 1,000 to 1,800 hours per year

³ ‘part-time’ means the preparation and delivery takes approximately 500 to 1,000 hours per year

GUIDELINE NO: 4.2***Drinking Water Operator/Water Quality Analyst Certification******January 2005******Revised June 2010***

Includes a course completion certificate issued by the training provider to participants who successfully complete the course. Such course completion certificates should be retained by the training provider for a minimum of three years, and contain at minimum the following information:

- Training provider's name;
- Participant's name;
- Training event title or description;
- Start and completion date of training course;
- Number of contact hours or 'Director Approved' CEUs;
- Signature of training provider or authorized representative;
- 'Director Approved' wording to indicate that the course is ministry approved (phased in) i.e. 'Director Approved Continuing Education Units 0.7; and
- Course ID (phased in).

Is on subject matter directly related to the duties typically performed by an operator or a water quality analyst such as:

- operation of the water systems;
- water treatment equipment, systems and processes including related chemical analysis;
- water distribution systems, equipment, processes and components;
- water math;
- how to operate existing or new technology;
- hydraulics, water chemistry, microbiology and public health concepts;
- how to achieve optimum water quality, including proper management of water residuals;
- emerging technology;
- proper safety procedures;
- role of the laboratory;
- acts, regulations, policies, standards and guidelines governing Ontario's drinking water systems;
- MOE standards, policies, and procedures;
- managing water residuals appropriately;
- health risks associated with water and emerging pathogen risks;
- drinking water sampling and monitoring procedures;
- emergency and contingency planning;
- maintenance of water treatment and water distribution equipment;
- reporting procedures, including the role and functions of the laboratory, the Public Health Office and the MOE;
- software programs and information technology related to the operations of a water facility;
- knowledge of bacteriology and biological, chlorinating calibration;

GUIDELINE NO: 4.2***Drinking Water Operator/Water Quality Analyst Certification******January 2005******Revised June 2010***

- drinking water data interpretation;
- professional effectiveness training including conflict management, problem solving, effective communication, and risk management decision making;
- supervision of water facility staff;
- professional responsibility of an operator;
- other subjects directly related to the duties of an operator.

Courses which appear to be of an orientation nature may not be accepted by the Ministry for full CEU value. Orientation courses may be used for On-the-Job Training hours.

Director Approved Continuing Education training that exceeds the certificate requirement can be applied to the On-the-Job Training hours, i.e. if an operator exceeds their 3 year Director Approved Training hours by 8 hours, they can apply these extra 8 hours to On-the-Job Training (however an operator cannot apply 8 hours of extra On-the-Job Training to Director Approved Training).

All courses must be successfully completed (i.e. passed) in order for CEUs to be assigned.

Exception to above criteria: The Director will recognize, as continuing education training, attendance at an industry seminar or conference to a limit of 25% of the minimum number of required continuing education annual hours of training provided that:

- such seminar or conference is specifically designated by the Director as ‘continuing education’ for the purpose of this guideline (a list of such designated conferences will be kept by the Certification Program Administrator);
- verification of having attended such a training event is provided by the seminar or conference sponsor to the participant at the end of the event⁴, and
- the seminar or conference is on the subject matter specified below in this guideline.

Seminar or conference hours above the 25% recognized for Continuing Education can be applied to the On-the-Job Training hours.

Other Considerations:

- **Consideration for Repeat Director Approved Courses:** It is expected that an operator and water quality analyst will receive training on different subjects. The same course, taken more than once during the three years cycle, will not be accepted for the purpose of meeting the annual training requirement.

⁴ Verification could include a letter from the sponsor or a stamped conference workshop form.

GUIDELINE NO: 4.2***Drinking Water Operator/Water Quality Analyst Certification******January 2005******Revised June 2010***

Where an operator is required by law to take a course every year (e.g. WHMIS), the hours will be recognized for each time the operator takes such a course. Conversely, other courses that operators may take every year, such as the Transportation of Dangerous Goods, will only be recognized once every three years as continuing education. The remaining hours related to this course can be applied to On-the-Job Training hours.

- **Consideration for Trainers of Director Approved Courses and On-the-Job Training:** An operator and water quality analyst who is also a training provider can apply each course and On-the-Job Training they deliver, only once, toward meeting their annual hours of training. The number of CEUs credited to a trainer will be the same as that credited to the course participants.

PROCESS FOR HAVING CONTINUING EDUCATION TRAINING ASSESSED

The Certification Program Administrator will assess courses against the above criteria. Courses that meet the criteria will be placed on a 'Director Approved Training List', which will be maintained by the Certification Program Administrator on its website. Operators and water quality analysts can refer to this list when selecting a training course/event.

The Certification Program Administrator will maintain a separate list of 'Director Approved' courses, provided by municipalities or operating authorities, to operators and water quality analysts in their employ (and thus not automatically available to other operators and water quality analysts).

Operators and water quality analysts are not limited to the training on the 'Director Approved' training list. However, in order to be considered for certificate renewal, the training taken by the operator and water quality analyst needs to be reviewed by the Certification Program Administrator to determine whether it meets the 'Director Approved' criteria. This review can be done before the operator or water quality analyst takes the training, referred to as '**pre-approved**' training. It can also be done after the operator or water quality analyst takes the training, referred to as '**post-approved**' training. With post-approved training the course provider must submit the required course information to the Certification Program Administrator within 30 days of the operator or water quality analyst taking the course.

If a training provider does not want their course published on the 'Director Approved' training list published on the Certification Program Administrator's website, please advise the Certification Program Administrator.

GUIDELINE NO: 4.2***Drinking Water Operator/Water Quality Analyst Certification******January 2005******Revised June 2010***

Out of province CEUs successfully obtained from other provinces in Canada will be granted the same CEUs as in Ontario provided the training meets the subject matter requirements of Guideline 4.2.

Water and Wastewater Operator Certification System (WWOCS)

Training Providers who wish to have a course assessed for continuing education units and Director Approval should contact the Certification Program Administrator in order to obtain a login and password to the Ministry's database, known as WWOCS. Instructions as to how to obtain a login and password are also provided on the Certification Program Administrator and the Ministry websites. Once access to WWOCS is obtained, training providers can submit their application for course assessment through the database.

Within two (2) months of delivering a training session, training providers are required to upload the resulting course participant lists in WWOCS.

Continuing Education Unit (CEU)

One Continuing Education Unit (CEU) is awarded for 10 contact hours of participation in organized continuing education/training events that meet the above criteria. Therefore, one (1) CEU equals 10 hours of 'Director Approved' training.

Documents Required from Training Providers

Should a training provider wish to have their courses assessed for approval as 'Director-Approved' training, the training provider must submit the course curriculum and/or other training material (see exception below) together with a completed '*Director Approved*' *Continuing Education Training Assessment* form, which needs to be processed through the Water and Wastewater Operator Certification Systems (WWOCS). The following information is required:

- Course title and description of subject matter;
- Number of hours of contact time;
- Training method (i.e. classroom, correspondence, computer-based, web-based, etc);
- Learning objectives;
- Participant learning verification method;
- Sample participant course completion record (i.e. certificate or letter);
- Course evaluation form (form through which the participant gives feedback on course and instructor);
- Timetable which demonstrates the instructor's use of time with respect to the delivery of the learning objectives, quizzes/tests, and breaks;

GUIDELINE NO: 4.2***Drinking Water Operator/Water Quality Analyst Certification******January 2005******Revised June 2010***

- Information that demonstrates the training provider is qualified by virtue of training, education or experience to design the training. Such evidence could include an adult education certificate, resume, or equivalent;
- Evidence that the instructor is qualified to provide the training. Such evidence could include an adult education certificate, resume, or equivalent.

Exception to submission of course curriculum/training material: The training provider may be exempt from having to submit course material where the Certificate Program Administrator is familiar with the course curriculum/course material and the trainer's qualifications. Trainers of courses that are recognized in the water industry and that have 'Director Approved' courses on the training list with CEUs assigned by the Certificate Program Administrator, should contact the Certificate Program Administrator to confirm whether or not they need to submit their course curriculum/training material.

The Certification Program Administrator will review the information and advise the training provider in writing as to whether the training event meets the criteria. If it fails to meet the criteria, the Certification Program Administrator will advise the training provider of the reasons.

When advertising a course which has been approved under Guideline 4.2 the training provider shall describe the course and the length of the training as "Director Approved Continuing Education Units" or "Director Approved CEUs".

Community Colleges, Universities or Other Academic Institutions

For degree, diploma or certificate courses offered by community colleges, universities or other academic institutions, the Certification Program Administrator only requires the following information:

- a description of the course subject matter, or a table of contents of the curriculum; and
- a sample of the course completion record.

Re-Assessment

Where the learning event has been altered substantially, such as a significant change in course objectives or the course duration has changed by 25% or more, the training provider is expected to resubmit the learning event material for re-approval, and pay the full course assessment fee.

Where the course instructor has changed, the training provider should submit to the Certification Administrator the required information providing evidence that the new instructor is qualified to train.



Ministry of the
Environment

GUIDELINE NO: 4.2

Drinking Water Operator/Water Quality Analyst Certification

January 2005

Revised June 2010

Failure to adhere to Guideline 4.2 requirements may result in the Ministry removing Director Approved status.

Approved June 2010