

Operator Certification Bulletin | Spring 2016

Drinking Water and Wastewater Operator Certification News

For more news or information please visit
www.ontario.ca/page/drinking-water or www.owwco.ca

Did You Know... ?



Ontario Receives North American Awards from the Association of Boards of Certification (ABC)

Ontario's Water and Wastewater Certification Program received ABC's 2016 Certification Program Award for outstanding contribution to advancing the knowledge and performance of environmental professionals. Brian Gildner of the Ministry of the Environment and Climate Change was also honoured with the Robert C. McAnespie Outstanding Certification Officer Award for his leadership in the development of North American-wide certification standards.

The certification program's win makes Ontario only the second Canadian jurisdiction to receive this award in the last 20 years.

Ontario's accomplishments in professional certification include:

- being the first Canadian jurisdiction to introduce mandatory entry-level training and develop a code of conduct for operators
- introducing rigorous continuing education requirements, including a unique mandatory course

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- leading the development of Canadian best practices which were the springboard for ABC's model standards.

Water and wastewater operators are instrumental in ensuring the safety of our drinking water and in protecting our natural environment.

We are committed to providing accessible customer service. On request, we can arrange for accessible formats and communications supports.

Redefining the Role of the Overall Responsible Operator

What are the roles and responsibilities of the overall responsible operator (ORO)?

Who should be designated as an ORO?

Do the existing requirements make it difficult to develop qualified OROs?

These are some of the questions the Ministry of the Environment and Climate Change has been asking operators, municipalities, associations and operating authorities over the past year as part of informal dialogues on potential changes to the ORO framework.

Some of the findings are:

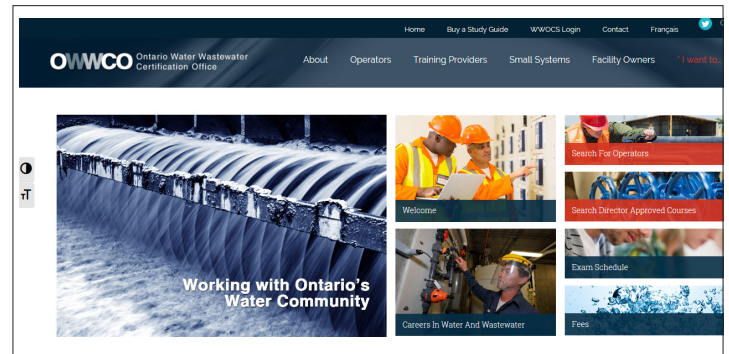
- Who an ORO is varies widely across the province – from a frontline operator to a senior manager.
- The roles and responsibilities of the ORO also vary from one municipality to another.
- Some municipalities have difficulty replacing OROs as a result of the operational experience requirements.

Based on the feedback, the ministry is determining if changes are required to more clearly define the scope of the ORO. Some changes could include:

- Putting greater emphasis on the day-to-day lead operational role of the ORO
- Renaming the ORO to better reflect their lead operational role
- Requiring that a municipality assign an ORO who is certified to the level of the system/facility for each staffed shift
- Clearly defining the responsibility of the ORO to include oversight for all process control decisions made during that shift
- Allowing flexibility for assigning the ORO role during evenings, weekends or unstaffed shifts. For example, allowing a Professional Engineer (P. Eng.) or Certified Engineering Technologist (C.E.T.) to be the ORO during unstaffed shifts, provided that they have completed training and/or the appropriate exams
- Redefining the Operator-in-Charge (OIC) position to better differentiate the OIC from the ORO

If the ministry pursues any changes, formal consultations will be initiated through the Environmental Bill of Rights Registry and other avenues.

Easy Access to Information on Certification Levels, Training Requirements and More



The Ontario Water Wastewater Certification Office (OWWCO) launched their new and improved website last fall. Finding program-specific information you need has never been easier!

- Renewing and upgrading your certificate or licence? With just a few clicks, you can quickly access specific information about certificate and licence renewals and upgrades, based on the type of certificate you hold. Just click on the **Operators** link and select what you need to do from the drop-down list.
- Training requirements: to find out what your specific training requirements are to renew your drinking water certificate, check out the Ministry of the Environment and Climate Change's **Guide to Drinking Water Operator Training Requirements**, also available on OWWCO's **website**.
- Get the information you need: are you a small system operator, facility owner or training provider? You can now quickly find all the information that is relevant to you by clicking on the group you belong to on the **home page**.
- Whether you know exactly what you're looking for or are unsure, use the "I want to..." link to quickly point you in the right direction.

Other dynamic features to help you navigate through the site include:

- Drop-down menus and lists
- Collapsible pages that display only the information you're looking for
- Several links to different website sections and documents

Also, the Exam Schedule, Operator List and Director Approved Course Listing on OWWCO's new [website](#) have been redesigned and are easier to use. Now you can sort the information by column headings and search within the lists to find exactly what you need.

If you haven't visited recently, check it out at www.owwco.ca.

Your Information is Safe with OWWCO

OWWCO is committed to protecting your privacy and your personal information. They have many policies and procedures in place to ensure your information is safe.



Your Personal Information

The handling of all personal information by Government of Ontario organizations is governed by the [Freedom of Information and Protection of Privacy Act](#). Based on the act and direction from the Ministry of the Environment and Climate Change, OWWCO follows strict protocols to help ensure that your personal information is protected. Some of these include rules on how your personal records are filed and kept secure, as well as rules around the type of information that OWWCO can and cannot share with third parties, including your employer, without your written authorization. For example, the following cannot be released without your authorization:

- Status of your application at OWWCO
- Exam marks (or whether you passed or failed an exam)
- Number or types of exams you wrote
- Your personal information such as phone number, email and mailing address

Information that is required to ensure regulatory compliance, or information that is already made public, can be shared with your employer without written consent. For example:

- Status of mandatory courses (if you completed them or not)
- Certificate / licence status (active, expired, suspended or revoked)
- Certificate / licence information (date of issuance or expiry, type, class)

Your Credit Card Information

Organizations that accept, process, transmit or store credit card information are subject to the [Payment Card Industry Data Security Standard](#) (PCI DSS) which sets out requirements to secure credit card information and reduce risk of credit card fraud. For the Water and Wastewater Operator Certification Program, these requirements include rules for:

- collecting and securing credit card information
- the secure destruction of credit card information when it's no longer needed
- controlling access to documents with credit card information
- restricting access only to individuals who process credit card information

How your credit card information is protected at OWWCO:

- Strict access control measures ensure application forms are secure and controlled at all times to protect your personal and credit card information and prevent unauthorized access or use.
- Credit card information is destroyed in a secure manner once payment has been processed.
- Credit card information is never kept in operator certification program files, or saved electronically.

If you have any questions or want more information on how your personal and credit card information is protected at OWWCO, please contact them by email at info@owwco.ca or phone **1-877-231-2122**.

Ontario Certification Working Group – Topics at their Latest Meeting

The Operator Certification Working Group (OCWG) last met on February 26, 2016. Below are some meeting highlights:

- Revisions to the Entry-Level Drinking Water Operator Course
- Walkerton Clean Water Centre's recent client consultations
- Review of the progress made by the ORO Discussion Group
- Operators-in-Training working alone
- New requirement for training providers to have their drinking water courses Director approved every three years
- New operator certification program smart forms to be launched in June 2016
- Certification for operators of First Nations systems

For more information about the OCWG and their previous meetings, visit OWWCO's website, go to Resources and follow the link under [Operator Certification Working Group](#).

Using Performance Based Training for Wastewater Treatment Optimization

Prepared by: Aaron Law, Environmental Innovations Branch, Ministry of the Environment and Climate Change

In October 2015, the ministry's Environmental Innovations Branch began its pilot test of Performance Based Training for municipal wastewater treatment optimization.

Performance Based Training, PBT for short, is a tool used in the United States to improve the performance of public drinking water systems beyond what is required by regulations, in turn improving public health protection. The premise of PBT is achieving better performance by making the best use of existing infrastructure – optimizing the treatment works rather than building new or bigger solutions. PBT was developed under the US's Area Wide Optimization Program, which has been in place for over two decades and is active in over 20 states.

The ministry's pilot test is to adapt PBT to wastewater treatment optimization in Ontario. "Performance Based" is in the name because the training is designed around performance goals. At the end of the training, participating treatment plants should be meeting higher levels of performance. An example of a performance goal in the US program is a combined filter effluent turbidity of 0.1 NTU or less for surface water drinking water treatment plants. Training occurs in a series of modules to a group of treatment plant operators and managers, and each module includes classroom sessions and in-plant assignments. In short, PBT distills the large amount of information available on how to treat water or wastewater into something that is useful to plant operators and managers.

The ministry's pilot test includes seven modules over about 15 months. The first three modules were completed in February 2016, and four more modules will take place between April 2016 and March 2017. Modules one to three introduced optimization and PBT, and did a deep dive into plant data. An important component of the first three modules was participants were taught how to calculate "Sludge Accountability" at their plants. Sludge Accountability is a comparison of how much sludge is produced at a plant with how much sludge should be produced based on what's coming into a plant. If accountability is good, the data reported by the plant (raw sewage, sludge amounts and effluent quality) is good. If accountability is off, investigation is required to find the source of the discrepancy. Sludge Accountability is a fundamental first step in a process control program: If you don't know where your sludge is coming from or where it's going, how can you control your process? The PBT modules will focus on more specific optimization and process control techniques.

The primary objective of the pilot test is to figure out if PBT works for wastewater treatment in Ontario. So far, the feedback from the five participating municipalities is very positive, with participants saying they would recommend PBT to other treatment plants or municipalities. If PBT works, part of the pilot test will include recommendations on how to best apply PBT in Ontario. Preliminary ideas include using the PBT package in municipalities that own several treatment plants, or using PBT in programs like the Watershed-wide Wastewater Optimization Program being led by the Grand River Conservation Authority.

It's been a great experience working with managers and operators from the County of Brant, Oxford

County, Region of Waterloo, Centre-Wellington, Norfolk County, OCWA, and Veolia. Special thanks go to the Grand River Conservation Authority and the Region of Waterloo for providing facilitators and meeting space, and to the City of Guelph for providing a tour of their treatment plant. XCG Consultants

Limited is working with the ministry to help create and deliver the training modules.

Please contact me, Aaron Law, for more information by phone **416-325-8481** or by email aaron.law@ontario.ca.

What's New?

New Certificates and Licences



Certificates and licences have a brand new look! Aside from their fresh design and colour, they also include security features. For example, the digital watermarking will help prevent illegal replication and falsification. Additionally, each certificate has its own control number on the top-left side, making each one unique.

Your existing certificates and licences remain valid until their expiry dates. The next time you renew or upgrade yours, you will receive it in this new format.

Watermain Disinfection Procedure: Implications to Operators and System Owners

The Ministry of the Environment and Climate Change released a new Watermain Disinfection Procedure in November 2015. This procedure was developed in consultation with several system owners and other stakeholders. Over 300 comments were received, all of which were considered for the final document.

The Watermain Disinfection Procedure uses a risk management approach to categorize watermain

breaks based on the potential for contamination. There are two categories:

- Category 1: A watermain break with no evident or suspected contamination intrusion at any time during the repair (flow was maintained until an air gap was established; air gap was maintained during the repair); and
- Category 2: A watermain break with evident or suspected contamination; or watermain repairs involving more than 6 metres of replaced pipe.

Implications to Operators

Once a watermain is isolated, it can be repaired by a non-certified individual, as currently allowed under Ontario Regulation 128/04 of the *Safe Drinking Water Act, 2002*. However, the procedure states that the Operator-in-Charge (OIC) will assess the evidence of contamination before and during the repair:

“Upon completion of excavation, the Operator-in-Charge (OIC) shall conduct a visual inspection to determine the nature of the break. The OIC will assess the evidence of contamination or potential contamination of the watermain before and during the repair procedure, and shall classify the break into one of two categories ...”

An OIC, under Ontario Regulation 128/04 is an Operator authorized to set operational parameters for a subsystem or for a process that controls the effectiveness and efficiency of a subsystem. An Overall Responsible Operator (ORO) is considered to be an OIC. The decision to designate an OIC should be based solely on the authority and ability of the Operator to make process decisions within the subsystem.

In the context of classifying a watermain break, the OIC would be responsible for determining the type of break, based on the implications to public health and the repair requirements. Should municipalities

use the procedures for Category 2 watermain breaks as a default, the classification of the break by an OIC would not be required, but a certified operator is still needed for all functions that require one.

Implications to System Owners

The difference in category will potentially impact the notification that is required and will most definitely impact the micro samples that are required, cleaning, and disinfection.

To implement this procedure, system owners and operators may need to revise current practices for disinfecting watermains when making an addition, modification, replacement or extension to a watermain, and for planned maintenance or emergency repairs.

Drinking Water Works Permits (DWWP) will be revised to reflect the requirements outlined in the Watermain Disinfection Procedure document. Until a system receives a DWWP with a specified implementation date, they may continue to use their existing procedures.

How to get copies

Request your copy of the Watermain Disinfection Procedure by emailing mdwlp@ontario.ca or calling **416-314-4300**.

Changes to Ontario's Drinking Water Quality Standards, Testing and Reporting Requirements

Upcoming changes to Ontario's Drinking Water Quality Standards, testing and reporting requirements may impact your drinking water system.

Ontario Regulations 170/03 and 169/03 under the *Safe Drinking Water Act, 2002*, have been amended to align standards with current science and best practices. The changes are based on technical work from the Canadian Drinking Water Quality Guideline and advice from the Ontario Drinking Water Advisory Council.

The amendments listed below have been approved and [a decision notice](#) has been posted to the Environmental Registry, including links to the amending regulations.

Amendments to Ontario Regulations 170/03 and 169/03 will be phased in between January 1, 2016 and January 1, 2020:

- Strengthening standards: arsenic, carbon tetrachloride, benzene, vinyl chloride
- Adoption of new standards: chlorate, chlorite, 2-methyl-4-chlorophenoxyacetic acid (MCPA), and haloacetic acids (HAAs)
- Clarification/optimization of testing, sampling and reporting requirements for trihalomethanes (THMs) and HAAs
- Removal of 13 pesticides from testing requirements

To reduce the burden on drinking water system owners and operators, the changes will be phased-in over the next four years. For more detailed information, including the implementation schedule, read the Ministry of the Environment and Climate Change's Regulatory Amendments Update Bulletin, developed for owners and operators of drinking water systems. To request a copy, please visit www.ontario.ca/contact-us.

New Rules for Director Approved Training

Drinking Water operators are required to meet specific education, training and experience requirements to renew their certificates. The education and training requirement is measured in Continuing Education Units (CEUs). Only courses that have been assessed and approved by the Director may be used to meet the continuing education training requirements for certificate renewal. Director approved courses are listed on the [website](#) of the Ontario Water Wastewater Certification Office (OWWCO).

Starting this fall, training providers will have to resubmit their courses for assessment and re-approval (renewal) every three years. This renewal process will help ensure that courses continue to meet the criteria for Director approved training, and will help keep the [Director Approved Course Listing](#) on OWWCO's website current and accurate. Courses that are not renewed will be removed from the list of courses, and future CEUs will not be accepted for these courses.

Expired Courses are not considered 'Director approved'

With the new requirement for training providers to have their courses renewed every three years, the Director Approved Course Listing will show upcoming renewal dates. These dates are extended by three years if the course is renewed. Courses that are not renewed are considered 'expired' and no longer qualify as Director approved training.

Improvements to the Course Listing

The Director Approved Course Listing has improved searching and sorting features, and additional course information. Courses have been assigned specific key 'topics' on what the course is about. You can search by topic or key words in the course title to find relevant training.

The list also includes links to training providers' websites and contact information so you can easily access the information you need about the courses being offered.

If you have any questions about these changes, please contact OWWCO at info@owwco.ca or call **416-231-2100** or **1-877-231-2122**.

Course Feedback

Have you recently taken Director approved training? If so, the Ontario Water Wastewater Certification Office (OWWCO) welcomes your feedback.

You can send your comments, compliments or concerns to OWWCO by filling out a short online form on their [website](#). Comments will be taken into consideration when courses are being reassessed for Director approval. Please be assured that your personal information and comments will be secured and not shared with training providers.

Drinking Water Protection Zone Road Signs Launched Across Ontario



The first provincially designed road sign was installed in the Town of Greater Napanee, under the Quinte Source Protection Plan

New signs to raise awareness of vulnerable areas near municipal drinking water sources are going up across Ontario as part of the **Source Protection Program**.

The Ministry of the Environment and Climate Change and the Ministry of Transportation will be working together with municipalities to install road signs and promote an understanding of vulnerable areas around municipal drinking water sources along provincial and municipal roadways.

Municipalities have started installing the provincially designed signs on municipal roadways. Some municipalities have already installed unique signs of their own, but as signs need to be replaced they are encouraged to use the provincial sign design.

Visit the **[Drinking Water Protection Zone Road Signs catalogue page](#)** for more information.

What's Coming Up

New Operator Certification Program Forms

On July 1, 2016, the Ministry of the Environment and Climate Change will introduce new forms for the Water and Wastewater Operator Certification Program.

- Municipal Residential Drinking Water Subsystem and Wastewater Facility Classification
- Water Wastewater Operator Certification System (WWOCS) User Access Request
- Change of Address Notification

Dynamic 'Smart Form' Technology

Users will complete the new forms electronically through an interactive and intuitive fillable PDF. This format allows users to take advantage of the embedded dynamic functionality included throughout the forms. Once completed, the PDF is printed, signed and submitted to the Ontario Water Wastewater Certification Office (OWWCO).

The dynamic functionality allows for the new forms to be individually customized based on the answers you provide. Each form will include a number of sub-forms, one for each type of request. The content of these sub-forms will change based on the answers you provide to the questions asked. This means you will only be presented with, and required to complete, the parts of the form that apply to your specific request.

The way instructions, guidance and other relevant information are provided on the forms will also change. Instructions have been embedded in the forms to provide you with the information you need when you need it. In addition to standard static instructions, two new types of instructions have also been added: help buttons and hover-over instructions. Help buttons explain how to complete part of the form or provide relevant guidance information, while hover instructions provide the meaning of terms or explain a specific field. Helpful links to ministry guidance and key information such as the Exam Schedule have also been included.

Warnings have been added to let you know when a required field has been missed, if the application form is incomplete, or if the information you provided indicates that you don't yet meet the requirements for your request, and therefore your application can not be processed.

New Forms will be available on the ministry's **Central Forms Repository** and through www.owwco.ca beginning July 1, 2016.

The image shows a screenshot of a web-based application form titled "Drinking Water Certificate and Wastewater Licence Renewal Application". The form is from the Ontario Ministry of the Environment and Climate Change. It includes sections for: Part A: Applicant Verification and Consent; Part B: Personal Information (Last Name, First Name, Middle Initial, Operator ID, Email Address, Home Address, City/Town, Home Phone Number, Cell Phone Number); Part C: Employer Information (Employer Address, City/Town, Business Phone Number, Business Cell Phone Number, Business Fax Number); and Part D: Type of Certification/Licence (Drinking Water Operator or Water Quality Hybrid Certificate, Drinking Water Operator-in-Training Certificate, Wastewater Operator Licence, Wastewater Operator-in-Training Licence). The form also includes a signature line and a date field.

The new forms will be compliant with the *Accessibility for Ontarians with Disabilities Act* and will incorporate 'smart form' technology with dynamic functionality to make the experience of completing application forms quicker and easier. The new forms have been designed to be user friendly and to

minimize application processing delays by reducing follow-ups due to missing or incorrect information.

Fewer Forms to Serve You Better

The number of forms will be reduced from 17 to seven. This reduction has been accomplished by amalgamating previously separate forms and grouping them by the type of service requested. For example, where there were previously two separate forms to request an examination, now there will be one form – the Examination Registration form. Where there were previously five separate forms to request a certificate or licence for the first time, now there will be one form – the Drinking Water Certificate and Wastewater Licence Application form.

The seven new application forms include:

- Examination Registration
- Drinking Water Certificate and Wastewater Licence Application
- Drinking Water Certificate and Wastewater Licence Renewal Application
- Operator-in-Training Certificate and Licence Issuance

Refund Policy

Effective June 1st, 2016 a new refund policy will be in place.

This new refund policy will coincide with the availability of new smart forms designed to clarify what is required for the submission of a complete application.

The following scenarios outline the application of the refund policy.

Scenario	Eligible for Refund?
You registered for an exam and decide to cancel your registration.	NO
*You paid for your OIT certificate with a cheque or money order when you applied for your OIT exam, but failed the exam. Will your certificate issuance fee be reimbursed?	YES
You apply to renew or upgrade your certificate / licence but withdraw your application(s) before a decision is made by the program Director.	YES
You are a training provider who submitted an application for director approved course evaluation, but withdraw your application before a decision is made by the program Director.	YES
You submit an application for a facility assessment/classification but withdraw your application before a decision is made by the program Director.	YES
Your application has been denied.	NO

**If you paid by credit card, the OIT certificate issuance fee is not charged until you pass the exam.*

Note that refunds may be issued for compassionate reasons at the discretion of the program Director.

Upcoming Conferences and Industry Events in Ontario

Event	Presented by	Date	Location
OWWA Seminar: Treatment Doesn't End at the Plant www.owwa.ca/event/treatment-doesnt-end-at-the-plant	OWWA	June 10	Toronto
Western Ontario Water Works Conference www.owwa.ca/event/western-ontario-water-works-conference-3	OWWA	Oct. 4 – 5	London
Northwestern Ontario Water and Wastewater Conference http://nwowwc.com/main	NWOWWC	Oct. 20 – 21	Thunder Bay

OWWA: Ontario Water Works Association

NWOWWC: Northwestern Ontario Water and Wastewater Conference

Reminders

Your Contact Information in WWOCS

To receive important program news, information and notices about future bulletins, please ensure your contact information in the Water Wastewater Operator Certification System (WWOCS) is updated. Log in at www.lrcsde.lrc.gov.on.ca/wwocs_web.

If you need access to WWOCS, complete the Operator User Access Request form and send it by mail or fax to:

Ontario Water Wastewater Certification Office
302 The East Mall, Suite 600
Etobicoke, ON M9B 6C7
Fax: 416-231-2107