

# Technical Brief

## ONTARIO DRINKING WATER SYSTEMS Certification of Drinking-Water Systems Operators and Water Quality Analysts Regulation

On May 14, 2004, the Ministry of the Environment filed Ontario Regulation 128/04, a new Certification of Drinking-Water System Operators and Water Quality Analysts regulation.

This regulation strengthens the certification and training requirements for certified operators and water quality analysts. It applies to Ontario drinking water systems that require a certified operator as provided for under the Safe Drinking Water Act, 2002, and O. Reg. 170/03, which are:

- Large Municipal Residential
- Small Municipal Residential
- Large Municipal Non- Residential
- Large Non-Municipal Non-Residential
- Non-Municipal Year-Round Residential

The new regulation results in changes for:

1. Grandparented operators
2. Operators-in-training
3. Operators
4. Water Quality Analysts
5. System owners and operating authorities

In addition, the Ministry has set a new fee structure for operators and water quality analysts. Fees have not changed since 1987. The increase both adjusts for inflation and helps offset the added costs of administering the strengthened operator/water quality analyst certification program.

This Technical Brief summarizes the key changes for each of the above-mentioned groups, and includes the change in fees. It is not intended

to be a comprehensive review of the new regulation. Additional information will be available in the near future through a detailed guide to the new regulation, which will be posted on the ministry's Web site at [www.ene.gov.on.ca](http://www.ene.gov.on.ca).

### 1. GRANDPARENTED OPERATORS

#### *Significant dates for grandparented operators*

*May 14, 2004: time period starts in which grandparented operators must be re-certified through passing a certification exam*

*May 14, 2005: deadline for grandparented operators who are overall responsible operators to pass certification exam if they wish to continue as overall responsible operator*

*May 14, 2006: deadline for all other grandparented operators to pass certification exam*

Under the *Safe Drinking Water Act, 2002*, all grandparented operator licences expire two years from the date the new O. Reg. 128/04 is filed.

This provision is now in effect, and **all grandparented operators** in Ontario must pass a certification exam **by May 14, 2006**, in order to remain certified.

Grandparented operators who are '**overall responsible operators**' must pass the exam within one year of the regulation being filed, i.e. **by May 14, 2005**, in order to remain an overall responsible operator.

*Grandparented operators have been sent a letter confirming their grandparented operator status. They have also been sent an information guide that answers frequently asked questions, and explains how to register for the exam preparation courses the ministry is making available.*

## 2. OPERATORS-IN-TRAINING

### **Entry-Level Course of Study**

Under the new regulation, an operator-in-training (OIT) certificate expires after 16 months. This certificate will be extended to three years if the OIT successfully completes a course of study approved by the Director.

OITs who let their certificate expire at 16 months must take the course of study and pass an exam to obtain a new OIT certificate.

The provision requiring successful completion of a course of study comes into effect on August 1, 2005. The Ministry will provide more information on the course of study prior to August 1, 2005.

### **OITs encouraged to secure Class I certificate**

OIT certificates expire 3 years from the time they were first issued, if they successfully complete the course of study. To remain certified, OITs need to secure a Class I certificate.

This provision comes into effect August 1, 2004.

The Ministry has established a phased-in schedule for existing OITs as follows:

- An OIT whose certificate expires on or after August 1, 2004 and before August 1, 2006 may have his or her certificate renewed to August 1, 2006, at which point it expires.
- An OIT whose certificate expires on or after August 1, 2006 and before August 1, 2007 may have his or her certificate renewed to August 1, 2007, at which point it expires.

### **OIT Summer Students**

An individual who works as an OIT for no more than four consecutive months in a seven-month period is exempt from taking the course of study. The temporary certificate that is issued in these circumstances will expire after 12 months. To regain a certificate, the individual must pass an exam and take a Director-approved mandatory course. This arrangement is limited to four years.

These provisions come into effect August 1, 2005.

The mandatory course will focus on topics such as emerging issues in water treatment and pathogens, risks to public health of improper treatment, and the importance of complying with regulatory measures. The Ministry will provide more information on the mandatory course prior to August 1, 2005.

#### **Other significant dates:**

##### **August 1, 2004:**

- *O. Reg. 128/04, comes into effect. Most provisions come into effect.*

##### **August 1, 2005— the following provisions of O. Reg. 128/04 come into effect:**

- *Annual training requirements for operators and water quality analysts*
- *Requirement that operators-in-training take course of study within 16 months of receiving OIT certificate*
- *Requirement that limited system operators take Director-approved course of study in order to qualify for a limited system operator certificate*
- *Requirement that water quality analysts take director approved training in order to qualify for a water quality analyst certificate*

## 3. CERTIFIED OPERATORS

### **New drinking water subsystem types**

For the purpose of this new drinking water certification regulation, the five system categories requiring a certified operator have

been divided into two groups:

- a. Municipal residential systems, and
- b. Limited systems.

a. Municipal residential systems include the following system categories:

- ✓ Municipal residential large, and
- ✓ Municipal residential small (surface water only).

For each there are three types of subsystems, with each divided into four classes as follows:

- Distribution – Class I-IV
- Distribution and Supply - Class I-IV, and
- Water Treatment - Class I-IV

A *distribution subsystem* is one that supplies and distributes water, but does not include that part of the water system that collects, produces or treats water.

A *distribution and supply subsystem* is a groundwater system that distributes and treats water, where the treatment is limited to disinfection. It does not include systems that obtain water under the direct influence of surface water.

b. Limited systems include the following system categories:

- ✓ Small municipal residential (groundwater only)
- ✓ Large municipal non-residential
- ✓ Non-municipal year-round residential, and
- ✓ Large non-municipal non-residential

For each of these there are two types of subsystems:

- Limited surface water, and
- Limited groundwater

### **Operators' Certificates**

Operator certificates correspond to the above types of subsystems.

Municipal residential operator certificates: there are three types of operator certificates, with each

type having four classes of operators' certificates, as follows:

- Distribution – Class I-IV
- Distribution and Supply – Class I-IV, and
- Water Treatment – Class I-IV

The qualifying criteria for these certificates remain largely unchanged from O. Reg. 435/93.

There is also an operator-in-training certificate. (See Operator-in-Training section above for information on certificate qualifying requirements).

Limited systems: there are two types of operator certificates as follows:

- Limited Groundwater and
- Limited Surface Water.

The qualifying criteria for new limited system operators is:

- grade 12,
- pass exam, and
- complete Director approved course of study.

Note: operators who worked in a system that is considered a limited system, for one month within the 12 months before August 1, 2004, need grade 10.

The first two requirements come into effect August 1, 2004.

The Director-approved course of study comes into effect August 1, 2005.

### **Existing Operator Certificates**

Municipal residential systems:

- A valid water treatment operator's licence is deemed to be an operator's treatment certificate of the same class as the class of licence held under O. Reg. 435/93.
- A valid water distribution operator's licence is deemed to be an operator's distribution and supply certificate of the same class as the class of licence held under O. Reg. 435/93.

Limited systems:

- Operators who work in a limited system and renew their certificates after August 1, 2004 may keep their existing certificate, or receive a limited system certificate.

#### **Certificate renewal and training**

Certificate renewal every three years is now conditional on successfully completing specific number of hours of training over the three-year period. Training must meet specific criteria, and includes continuing education and on-the-job practical training. Hours are graduated from 20 hours per year for more simple systems, to 50 hours per year for more complex systems. In addition to other criteria, both the continuing education and the on-the-job training must have documented learning objectives, and directly relate to the duties typically performed by the operator. Annual hours include a Director-approved mandatory course.

The Ministry has established a phased-in schedule over four years for existing operators to meet the training requirements.

The new annual training requirements come into effect on August 1, 2005.

#### **Certificate renewal and experience**

Certificate renewal is also conditional on having at least three months experience in the previous 36 months of working as an operator in a subsystem, or of having duties that the Director considers related to those of an operator of a subsystem.

This experience requirement comes into effect on August 1, 2004.

#### **Re-issuance of certificate after expiry**

An operator whose certificate has expired for one year or less must pay a late fee in addition to meeting the other certificate renewal requirements.

An operator whose certificate has expired more than one year must meet the requirements for a

new certificate of that type and class, except that the Director can waive the requirement that the operator hold a lower level certificate.

These provisions come into effect on August 1, 2004.

#### **Professional Engineers**

Professional engineers are now required to meet the same experience requirements as other operators in order to obtain an operator certificate. Further, an engineer without an operator certificate can no longer be designated as the overall responsible operator.

These provisions come into effect on August 1, 2004.

### **4. WATER QUALITY ANALYSTS**

#### **Qualifying requirements**

The requirements to qualify for a water quality analyst certificate are as follows:

- Have grade 12,
- Pass exam,
- Complete Director approved training or have at least one year of specific experience

These requirements come into effect August 1, 2004, except for the Director-approved training requirement which comes into effect August 1, 2005

#### **Certificate renewal and training**

To renew their certificate every three years, water quality analysts must complete a specific number of hours of training annually, including continuing education and on-the-job practical training. The continuing education hours include a Director- approved mandatory course.

These annual training provisions come into effect August 1, 2005.

#### **Certificate renewal and experience**

To renew their certificate water quality analysts are required to have at least three months

experience in the previous 36 months of working as a water quality analyst in a subsystem.

This experience requirement comes into effect August 1, 2004.

**Re-issuance of certificate after expiry**

Also applicable to water quality analysts are the re-issuance of expired certificate provisions as described above for operators.

These provisions come into effect August 1, 2004.

5. SYSTEM OWNERS AND OPERATING AUTHORITIES

**Overall responsible operators**

System owners and operating authorities are required to designate an overall responsible operator, as of August 1, 2004. To 'designate' means to appoint an operator as holding the position of overall responsible operator. The expectation is that the overall responsible operator for each shift will be identified either through recording the ORO's name in the daily log, or through some other means.

This provision comes into effect August 1, 2004.

**Keep training records**

Owners and operator authorities must keep training records for five years for on-the-job practical training completed by operators in their employ.

This provision comes into effect on August 1, 2005.

6. SYSTEM RE-CLASSIFICATION

Under O. Reg. 128/04 system classifications issued under O. Reg. 435/93 are valid under the new regulation until the earlier of August 1, 2005 or the date the system is re-classified. During this time, systems that are classified as 'distribution' under O. Reg. 435/93 are deemed

to be 'distribution and supply' under this new regulation. The Ministry intends to re-classify all municipal residential systems over the next year, given the additional system types described above and that many systems have been altered over the last 10 or more years. Further, minor changes were made to systems classification points to make these consistent with the Drinking Water Testing Services regulation (O. Reg. 248/03). Owners and operating authorities will receive a letter and application form in the near future to facilitate this process.

7. AMENDMENTS TO O. REG 170/03 AND O. REG. 248/03

Two amending regulations have been filed – O. Reg. 126/04 and O. Reg. 127/04 - to amend the Drinking Water Systems regulation (O. Reg. 170/03) and the Drinking Water Testing Services regulation (O. Reg. 248/03). The amendment makes consistent the definition of a certified operator, and the definition of a water quality analyst.

8. SEPARATE WASTEWATER OPERATOR CERTIFICATION REGULATION (O. Reg. 129/04/04)

As a result of the new drinking water certification regulation, a separate regulation was created to revoke O. Reg. 435/93, and to consolidate the existing wastewater licensing requirements from O. Reg. 435/93. This regulation is titled 'Licensing of Sewage Works Operators', bears the number Ontario Regulation 129/04, and was made under the *Ontario Water Resources Act*. The licensing and training requirements for wastewater operators remain largely the same as under O. Reg. 435/93. However, there are some administrative changes. For information on the separate wastewater regulation, visit the Ministry's Web site at [www.ene.gov.on.ca](http://www.ene.gov.on.ca) for the Technical Brief for wastewater systems.

9. ADDITIONAL INFORMATION ON THE  
REGULATION

A detailed guide to the new Certification of Drinking-Water System Operators and Water Quality Analysts regulation will be available in the near future on the ministry Website and the OETC Website. This guide will explain every part of the regulation in an easy-to-understand manner. It will also provide information on fees, examinations, study material and application forms.

10. NEW FEE STRUCTURE

Drinking water operator and water quality analyst fees have been increased by approximately 50 percent to adjust for inflation for the period from 1987 to 2003. The new fees also reflect the additional costs to administer the new drinking water certification regulation. The new fees for drinking water and wastewater operators, and water quality analysts, are as follows:

Fee	Drinking Water Operator Fee	Operators-in-Training		Wastewater Operator Fee	Water Quality Analyst
		DW OIT	WW OIT		
Exam	\$75	\$30 (all 4 exams)	\$30 (all 4 exams)	\$75	\$75
Certificate	\$115	\$30	N/A	\$115	\$115
Certificate Renewal	\$115	\$115	\$75	\$75	\$75
Late Renewal	\$25	N/A	N/A	N/A	\$25
Replacement Certificate	\$75	\$75	\$75	\$75	\$75
Facility Classification*	\$150	N/A	N/A	N/A	N/A
Course Assessment**	\$50 + \$30 per CEU	N/A	N/A	N/A	\$50 + \$30 per CEU

\* paid by facility owner \*\* paid by course provider

FOR COPIES OF THE REGULATION

For a copy of the Certification of Drinking-Water System Operators and Water Quality Analysts regulation (O. Reg. 128/04), and the Licensing of Sewage Works Operators regulation (O. Reg. 129/04), visit the Ministry's Web site at [www.ene.gov.on.ca](http://www.ene.gov.on.ca)

FURTHER INQUIRIES

For further inquiries regarding changes to the regulation, contact the Ministry of Environment's Public Information Centre at (416) 325-4000 or 1-800-565-4923.