

**PROTOCOL FOR UPDATING  
CERTIFICATES OF APPROVAL  
FOR  
SEWAGE WORKS**



Ministry of the Environment

**January 2005**

## **TABLE OF CONTENTS**

---

|                                                                           |                  |
|---------------------------------------------------------------------------|------------------|
| <b><u>Introduction</u></b>                                                | <b><u>1</u></b>  |
| <b><u>What are Certificates of Approval?</u></b>                          | <b><u>3</u></b>  |
| <b><u>Protocol for Updating Sewage Works Certificates of Approval</u></b> | <b><u>5</u></b>  |
| <b><u>Assessment Criteria for Sewage Works</u></b>                        | <b><u>8</u></b>  |
| <b><u>Appendix A: Key Ministry Documents Related to Sewage Works</u></b>  | <b><u>11</u></b> |

*Protocol for Updating Certificates of Approval for Sewage Works*

## Introduction

---

The Ministry of the Environment (Ministry) has a broad mandate to provide for the protection and conservation of the natural environment of Ontario. Certificates of Approval (Cs of A) are one way that the Ministry works to achieve its environmental protection objectives.

For the first time, the Ministry has documented its protocols for updating Cs of A to provide a “one stop” information source on *how* and *when* Cs of A are updated through a continuous improvement cycle. These protocols will:

- clearly communicate to proponents in the regulated community and to the public the Ministry’s objectives and processes for updating specific types of Cs of A;
- outline the Ministry’s current priorities for updating Cs of A that it reviews. While these may change over time, this information will assist proponents to understand which Cs of A are more likely to be considered for updating;
- improve the administration of the approvals process by encouraging consolidation of Cs of A;
- actively encourage pre-application consultation with proponents to explain the environmental protection requirements of the project;
- promote consistency in the approvals process; and
- provide opportunities for public transparency in Ministry decision making and foster continuous improvement.

These protocols for updating Cs of A will continue to take a balanced approach. This approach looks at both the benefits and cost of implementing new requirements to achieve those benefits without compromising health or safety.

The Ministry has produced four protocols for updating Cs of A, each targeted to one of the following environmental media:

- Sewage Works
- Air Emissions
- Drinking-Water Systems
- Waste Management

Each protocol contains the same basic information regarding the overall review process and is customized for the specific type of Cs of A.

This is the *Protocol for Updating Certificates of Approval for Sewage Works* (Protocol). Information in this Protocol is organized in four sections:

- Introduction
- What are Certificates of Approval?
- Protocol for Updating Sewage Works Certificates of Approval
- Assessment Criteria for Sewage Works

Additional information can be obtained from:

Ministry of the Environment  
Environmental Assessment and Approvals Branch  
2 St. Clair Avenue West, Floor 12A  
Toronto, ON M4V 1L5

Telephone: (416) 314-8001 or Toll Free: 1-800-461-6290  
Fax: (416) 314-8452

Or visit the Ministry Web site at: [www.ene.gov.on.ca](http://www.ene.gov.on.ca).

## What are Certificates of Approval?

---

Certificates of Approval (Cs of A) are required by the *Environmental Protection Act* and the *Ontario Water Resources Act* for specific activities related to sewage works, air and noise emissions, and waste management activities. Approvals are required by the *Safe Drinking Water Act, 2002* for specific activities related to drinking-water systems.

The primary purpose of Cs of A, in the context of sewage works, is to ensure that the proposed works or amendments to the works is established, altered, extended or replaced in accordance with Ministry requirements. In addition, the Cs of A outline performance standards that:

- protect human health and the environment by preventing potential harmful effects;
- require a facility to conform to generally accepted engineering practices with the potential to operate reliably;
- provide minimum requirements for compliance as set out in acts, regulations, standards, policies, guidelines and procedures; and
- outline specific responsibilities of facility owners and operators.

Each Certificate of Approval (C of A) is site-specific and tailored to the individual circumstances and characteristics of the facility and its local environment. The C of A places legally-binding requirements on the owner/operator of the facility intended to prevent or manage environmental impacts.

A C of A reflects the Ministry's environmental protection requirements in effect at the time it is issued. New environmental protection requirements continue to be developed over time and are reflected in Ministry policies, guidelines, procedures, and legislative/regulatory frameworks. One of the purposes of this Protocol is to formalize a continuous improvement cycle so that existing Cs of A keep pace with these changes.

A Director, for the purposes of this Protocol, is an individual that is appointed pursuant to Section 5 of the *Ontario Water Resources Act* (OWRA) by the Minister of the Environment. A decision on whether to update a C of A, in accordance with this Protocol, is made by the Director, on an individual basis using his or her discretion as outlined in Section 53 of the OWRA. This gives the Director the discretionary authority to grant or amend an approval, refuse to grant or revoke or suspend the approval.

Ministry documents such as this and other appropriate documents in Appendix A may be considered by the Director in making these decisions.

## **Protocol for Updating Sewage Works Certificates of Approval**

---

### **What are the Objectives of the Protocol?**

In this first phase of implementation, the focus of the *Protocol for Updating Certificates of Approval for Sewage Works* is on **environmentally significant facilities with direct effluent discharges to surface water or groundwater** such as:

- Municipal or private facilities for the treatment and disposal of sewage.
- Pumping stations and detention chambers that are designed and approved to overflow.
- Facilities for the treatment and disposal of industrial sewage, landfill leachate and ongoing site remediation activities.

The Ministry may also choose to assess and update other types of Cs of A for sewage works based on site-specific information or to support other environmental protection priorities at any time.

The detailed assessment criteria used by the Ministry to determine new or changed requirements that will be included in an updated sewage works C of A are discussed in the next section.

### **When will the Protocol be used to update a C of A?**

When the Ministry reviews an existing Sewage Works C of A for any reason, this Protocol will be used to determine if any changes to requirements should be incorporated. An outline of this process is presented in Figure 1.

The Ministry may review an existing C of A when:

- an owner makes an application to the Ministry for a change to the existing equipment, processes, production rates or for an expansion of plant capacity (excluding applications for minor changes and administrative amendments); or
- Ministry staff, through the course of compliance, inspection or enforcement activities, identifies a facility that is appropriate for a more in-depth assessment.

There is also an existing mechanism under the *Environmental Bill of Rights* (EBR) through which the public may make an application to review an existing C of A.

## **What is the Process?**

Regardless of the mechanism used to trigger the C of A review, this Protocol will be used to determine the scope of the update. The more assessment criteria that apply to a C of A (details in next section), the more likely it is that a C of A update will be required.

The Ministry will work and communicate directly with the facility owner throughout the process when a proponent with an existing C of A comes forward with an application to amend its current operation. Pre-application consultation is an important component of the application process. It can include discussing the extent to which the Ministry may require new or amended requirements in an updated C of A. By actively engaging in dialogue, the Ministry and the proponent can work together to define the environmental protection requirements of the project (for example effluent requirements, establishing general acceptability of the proposed technology, identifying any special approval-related requirements and determining the need for public consultation or notification).

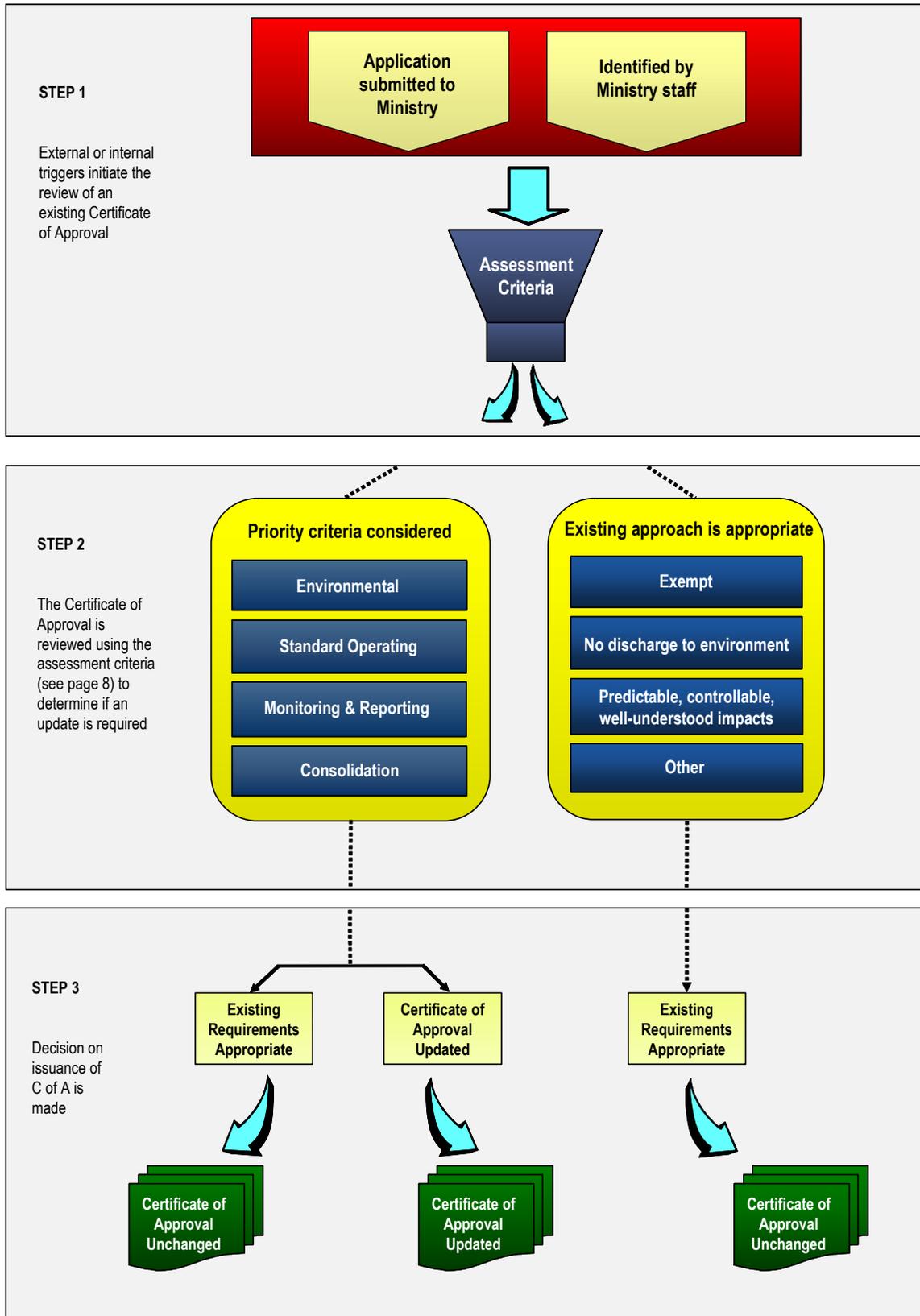
Once an application is submitted, the facility owner will receive an acknowledgement letter from the Ministry. This will reference the Ministry's intent to update the C of A in accordance with the Protocol. As well, when required by the *Environmental Bill of Rights*, the proposal for the C of A application will be posted on the Environmental Registry for public comment.

When an updated C of A is drafted, a copy of the draft updated C of A is sent to the facility owner for further review, as appropriate.

If an update to a C of A is triggered by Ministry staff, through the course of their compliance, inspection or enforcement activities, the Ministry will either require that an application be submitted or initiate the update.

Upon completion, the final version of the C of A is issued. When required, a decision posting on the Environmental Registry will reflect the manner in which the C of A has been updated at the end of the process.

Figure 1: Process for Updating Certificates of Approval



## Assessment Criteria for Sewage Works

---

The review of the existing C of A is done using the assessment criteria, and may also be based on input from Ministry field and technical staff. The review will determine the extent to which the C of A meets the following requirements:

- Current environmental legislation, regulation, standards, policies, guidelines and procedures.
- Necessary, up-to-date operating requirements.
- Relevant monitoring and reporting requirements.

The review will also:

- encourage consolidation of certificates where appropriate; and
- identify other site-specific requirements as appropriate.

This Protocol contributes to an overall cycle of continuous improvement so that the requirements for existing Cs of A will be made more consistent with the requirements placed on newly issued Cs of A.

### Detailed Assessment Criteria

#### Environmental Requirements

If relevant environmental protection requirements set out in existing Ministry policies, guidelines and objectives are not included, they may be added to the C of A. These requirements include:

- any relevant environmental protection requirements set out in the Key Ministry Documents Related to Sewage Works listed in Appendix A;
- capacity limits not to exceed the design flow rate of the sewage works; and
- effluent quality performance limits. For example:
  - If the proponent is requesting approval for a plant expansion to provide additional treatment capacity for an existing facility discharging to surface water or groundwater, an environmental impact analysis will be required and reviewed by the Ministry to determine new site-specific effluent quality criteria and toxicity limits in the updated C of A.

- If a treatment plant is not undergoing expansion, the need for updated site-specific effluent quality criteria and toxicity limits may be required for additional protection of the receiving water body and determined on a case-by-case basis.

### Standard Operating Requirements

The Ministry will determine if the C of A includes up-to-date standard operating requirements. If not already included, requirements that may be added to the C of A are as follows:

- Operation and maintenance manuals, contingency plans and documented complaint response procedures.
- As constructed (if available) and up-to-date record drawings of the facility.
- A signed responsibility agreement with the municipality for privately-owned facilities for municipal sewage treatment.

### Monitoring and Reporting Requirements

If monitoring and reporting requirements appropriate for the type of sewage works are not included in the existing C of A, requirements that may be added to a C of A are as follows:

- Monitoring and recording of flow measurements and effluent quality.
- Notification procedures to the Ministry of non-compliance events, such as effluent performance limits, effluent by-pass or operational failure.
- Annual performance reports including sampling and monitoring data, together with a compliance assessment summary of performance.

### Consolidation

During the assessment, the Ministry will consider if the facility has multiple Cs of A that can be replaced by a single C of A.

A decision on encouraging a facility to consolidate Cs of A is based on whether sufficient information is readily available from:

- Ministry information systems;
- supporting documentation submitted by the facility owner; and

- information reasonably obtained from the facility owner during the technical review.

**NOTE:** If other relevant site-specific requirements (not listed above) are not included in a C of A, the Ministry may decide to update the C of A to address these issues on a case-by-case basis.

## **Sewage Works Cs of A Where Existing Approach/Requirements are Appropriate**

It is unnecessary to use this Protocol in circumstances such as the following:

- Some types of sewage facilities and equipment with minimal environmental impacts no longer require a C of A due to exemptions under Ontario Regulation 525/98. These exemptions cover, for example:
  - Service connections from the existing sewers to the property line within the public right of way, components of the sewage collection system that do not affect the system's performance, including appurtenances (for example maintenance holes, catch basins and ditch inlet grates).
  - Relining or replacing existing sanitary and storm sewers to restore aging pipes and storm water management facilities which discharge into the sewage collection system that serve one lot or parcel of non-industrial land.
- Cs of A required for parts of the sewage collection system, which do not discharge into the environment, including:
  - Storm and sanitary sewers, forcemains and pumping stations, detention chambers and storm water management systems discharging to the collection system.
  - Operation and maintenance of the sewage collection system is the responsibility of the owner and/or operating authority.
- Facilities that have ceased operating or are no longer in business. The Director will consider the impact to the users and the environment and the C of A may be revoked or amended as appropriate.

Despite the foregoing, the Ministry retains the authority to review and require new or amended requirements in an existing sewage works C of A at any time.

## **Appendix A: Key Ministry Documents Related to Sewage Works**

---

- B-1-2 Water Management - Policies, Guidelines, Provincial Water Quality Objectives of the Ministry of Environment and Energy (Includes B-1-1)
- B-7 Incorporation of the Reasonable Use Concept into MOEE Groundwater Management Activities
- D-5-2 Application of Municipal Responsibility for Communal Water and Sewage Services
- F-5 Levels of Treatment for Municipal and Private Sewage Treatment Works Discharging to Surface Waters
  - F-5-1 Determination of Treatment Requirements for Municipal and Private Sewage Treatment Works Discharging to Surface Waters
  - F-5-2 Relaxation of Normal Level of Treatment for Municipal and Private Sewage Treatment Works Discharging to Surface Waters
  - F-5-3 Derivation of Sewage Treatment Works Effluent Requirements for the Incorporation of Effluent Requirements into Certificates of Approval for New or Expanded Sewage Treatment Works
  - F-5-5 Determination of Treatment Requirements for Municipal and Private Combined and Partially Separated Sewer Systems
- F-8 Provision and Operation of Phosphorus Removal Facilities at Municipal, Institutional and Private Sewage Treatment Works
- F-10 Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)
  - F-10-1 Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only)
- Stormwater Management Planning and Design Manual [defines levels of protection for streams based on fish habitat and draws from MNR Guidelines such as "Fish Habitat Protection Guidelines for Developing Areas" as well as DFO (Federal Department of Fisheries and Oceans) Guidelines]
- Guidelines for the Utilization of Biosolids and Other Wastes on Agricultural Land
- Guide for Applying for Approval of a Hauled Sewage (Septage) or Processed Organic Waste (Biosolids) Waste Disposal Site

- Guide for Applying for Approval of a Waste Management System
- Protocol for the Sampling and Analysis of Industrial/Municipal Waste Water
- Other applicable Ministry guideline documents

Many of these documents can be found at the Ministry of the Environment's Web site: <http://www.ene.gov.on.ca/envision/gp/index.htm> or can be obtained from:

Ministry of the Environment  
Environmental Assessment and Approvals Branch  
2 St. Clair Avenue West, Floor 12A  
Toronto, ON M4V 1L5

Telephone: (416) 314-8001 or Toll Free: 1-800-461-6290  
Fax: (416) 314-8452