

**PROTOCOL FOR UPDATING  
CERTIFICATES OF APPROVAL  
FOR AIR EMISSIONS**

**April 2002**



Ministry of the Environment

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# INTRODUCTION

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The Ministry of the Environment (the “Ministry”) has a broad mandate of restoring, protecting and enhancing environmental quality in Ontario. Certificates of Approval (CsofA) 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 CsofA to provide a “one stop” information source on *how* and *when* CsofA are updated through a continuous improvement cycle. These Protocols will:

- ❑ Clearly communicate to clients in the regulated community and to the public the Ministry’s objectives and processes for updating specific types of CsofA.
- ❑ Outline the Ministry’s current priorities for updating CsofA that it reviews. While these may change over time, this information will assist clients to understand which CsofA are more likely to be considered for updating.
- ❑ Improve the administration of the approvals process by issuing Consolidated CsofA and Basic Comprehensive CsofA.
- ❑ Actively encourage pre-application consultation with clients to explain the environmental protection requirements of the project.
- ❑ Promote consistency in the approvals process.
- ❑ Provide opportunities for public transparency in Ministry decision making and foster continuous improvement.

These Protocols for Updating CsofA will continue to take a balanced approach that looks at both the benefits of enhanced performance requirements *and* the cost of implementing new requirements to achieve those benefits.

While the Protocols outline the Ministry’s approach for updating CsofA, the Director’s decision is made on an individual basis using his or her discretionary authority in the application of the Protocol.

The Ministry has produced four *Protocols for Updating Certificates of Approval*, each targeted to one of the following environmental media:

- ❑ Sewage Works
- ❑ Air Emissions
- ❑ Water Works
- ❑ Waste Management

Each Protocol contains the same basic information regarding the overall review process and is customized for the specific type of Certificates of Approval.

This is the *Protocol for Updating Air Emissions Certificates of Approval* ("Protocol").

Information in the Protocol is organized in four sections:

- Introduction
- What Are Certificates of Approval?
- Protocol for Updating Air Emissions Certificates of Approval
- Assessment Criteria for Air Emissions

Additional information can be obtained from:

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

Telephone: (416) 314-8001 or Toll Free: 1-800-461-6290  
Fax: (416) 314-7030

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

## What are Certificates of Approval?

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Certificates of Approval are required by the *Environmental Protection Act* and the *Ontario Water Resources Act* for specific activities related to sewage works, air emissions, waste management activities and water works.

The primary purpose of CsofA is to assess potential impacts to the environment as early as possible in the planning phase of a facility so that appropriate environmental standards are in place from the beginning of its operation to:

- 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 with Ministry standards as set out in acts, regulations, policies, objectives and guidelines.
- Outline minimum responsibilities of facility owners and operators.

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

A CofA 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 CsofA keep pace with these changes.

### **Certificates of Approval – Air**

The Ministry is taking steps to improve the level of environmental protection through its ongoing efforts to consolidate multiple air emissions CsofA into:

- Consolidated Certificates of Approval, or
- Basic Comprehensive Certificates of Approval.

Moving in the direction of creating single, consolidated CsofA is expected to bring about enhanced emitter accountability and help achieve greater compliance with regulations. The consolidation of multiple air CsofA can take place as part of the review process outlined in this Protocol as well as independently. Two types of

CsofA, consolidated and comprehensive, are discussed below.

### **Consolidated Certificates of Approval – Air Emissions**

Consolidated Certificates of Approval replace multiple existing CsofA into a single CofA and may include new or historically unapproved sources for all emissions. A Consolidated CofA may include all sources of contaminants from the facility or may be limited to sources that have common contaminants with the sources that are the subject of the review.

An owner/operator is required to apply for an amendment to the facility's Consolidated CofA before making any modifications that require approval.

### **Basic Comprehensive Certificates of Approval – Air Emissions**

The Ministry developed Basic Comprehensive CsofA as part of its commitment to increasing emitter accountability and enhancing compliance with regulations for aggregate emissions from a facility.

A Basic Comprehensive Certificate of Approval replaces all existing CsofA for a facility and includes new or historically unapproved sources of emissions. It provides owners/operators with limited operational flexibility to make modifications up to an approved maximum production rate without the need to seek amendment to their Basic Comprehensive CofA (e.g., process changes, de-bottlenecking or addition of new equipment). The result is improved efficiencies and reduced administrative costs for both Ontario industry and the Ministry.

In return, the facility must continue to demonstrate compliance with specific performance limits and documentation requirements, most notably through ongoing documentation of compliance with Regulation 346 of the *Environmental Protection Act* and the Ministry's air standards and guidelines. All modifications made under the limited operational flexibility must also be logged.

The operational flexibility conditions expire in five years. The owner/operator is required to make application for an amendment in order to renew them. If no application is received before the five-year expiry date, the operational flexibility ends and the CofA becomes a Consolidated Certificate of Approval. This means that an amendment to the CofA has to be obtained from the Ministry for any future modifications.

**Basic Comprehensive CsofA are the only type of approval that are continually updated and represent the Ministry's preferred approach for all approvals related to air emissions.**

The Ministry has developed additional reference materials to supplement the application guidance package and provide support for owners/operators issued with Basic Comprehensive CsofA.

# Protocol for Updating Air Emissions CsofA

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## What are the Objectives of the Protocol?

The existing air approvals program incorporates the following requirements into a new CofA or an amendment to an existing CofA

- Current environmental standards, guidelines and policies.
- Standard up-to-date operating requirements.
- Relevant monitoring and reporting requirements.

The review will also:

- Wherever possible, result in a Consolidated CofA or a Basic Comprehensive CofA.
- Identify other site-specific requirements as appropriate.

Ministry recognises that a balanced approach that considers both the benefits of enhanced requirements as well as the cost is important.

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

## When will the Protocol be used to update a CofA ?

When the Ministry reviews an existing CofA 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 update an existing CofA 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.

In addition, the Ministry may also target specific sectors and/or types of facilities with more significant potential environmental or health impacts based on overall Ministry and government environmental protection priorities.

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 Certificate of Approval.

### **What is the Process?**

Since October 1, 1998, the Ministry has required a complete Emission Summary and Dispersion Modelling (ESDM) Report when an application for approval under Section 9 of the *Environmental Protection Act* is submitted. The ESDM Report must be:

- prepared in accordance with the Ministry's "Procedure for Preparing an Emission Summary and Dispersion Modelling Report", dated June 1998, as amended from time to time (the Procedure Document); and
- contain an assessment of all sources of common contaminants with the sources that are the subject of the application.

In addition, an approval of all sources of emission (including previously unapproved sources) will be issued by the Ministry regardless of the installation date provided the owner/operator can demonstrate compliance with Regulation 346 for the aggregate emissions from the facility.

The applicant is required to provide a list of existing Certificates of Approval when preparing an application. This list is used by the Ministry when it considers whether multiple CsofA should be consolidated into a single Consolidated CofA or a Basic Comprehensive CofA.

The Ministry will assess the ESDM and application documents and will hold the applicant accountable for demonstrating that all sources of common contaminants have been included in the ESDM report, regardless of their approval status. The applicant is responsible for demonstrating that the facility is in compliance with Regulation 346 for the contaminants under review. In addition, new Air Standards implemented through Regulation 346 automatically apply to all sources as identified in the regulation.

Incomplete applications that do not contain the minimum information requirements or follow the requirements outlined in published Ministry procedures will be returned without a technical review and applicants will be required to resubmit their application.

Regardless of the mechanism used to trigger the CofA review, this Protocol will be used to determine the scope of the update. The more assessment criteria that

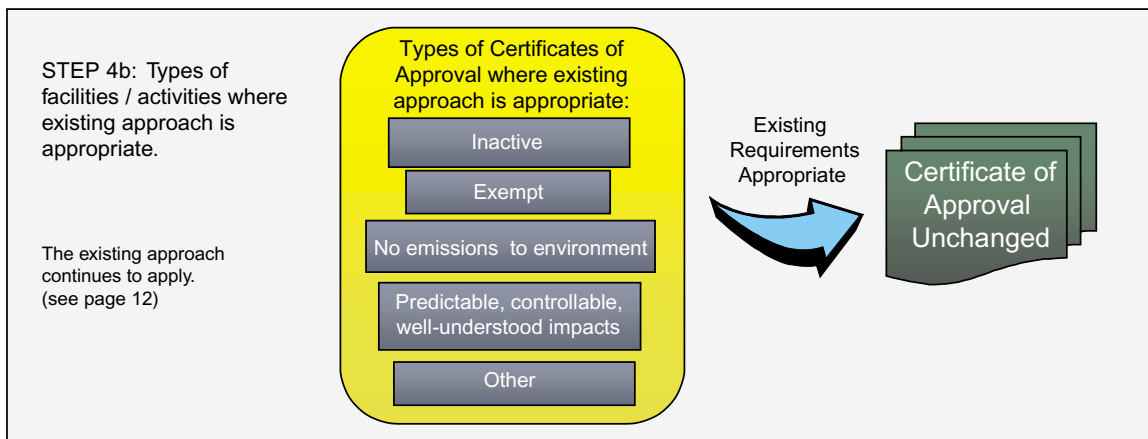
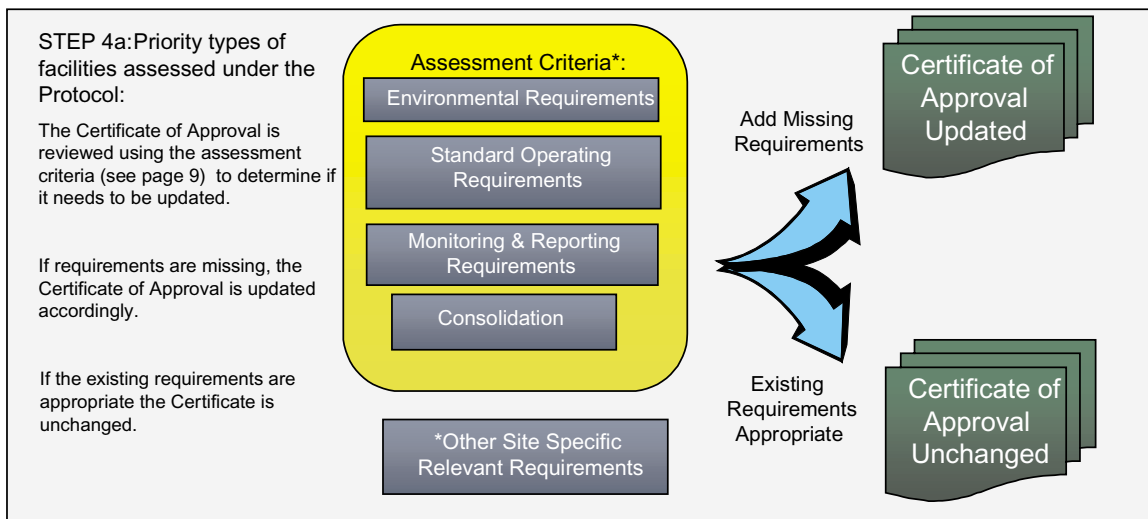
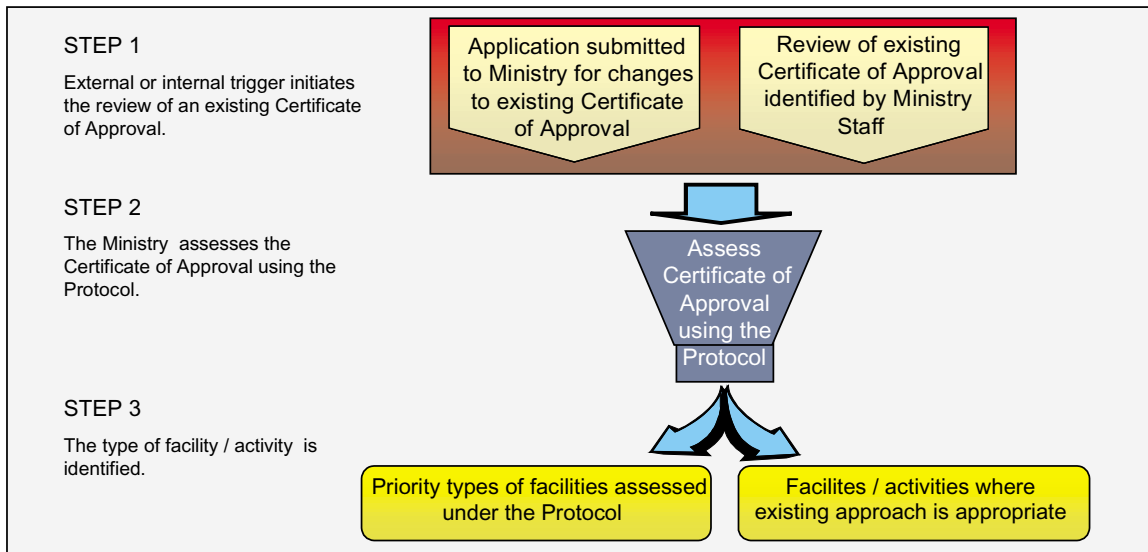
apply to a CofA (details in next section), the more likely it is that a CofA update will be required.

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

If an update to a CofA 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 CofA is issued and, where required, a decision is posted on the Environmental Registry at the end of the process.

Figure 1: Process for Updating CsofA



## ASSESSMENT CRITERIA FOR AIR EMISSIONS

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The focus of the existing air approval program is on holding the emitter accountable for ensuring that their facilities are in compliance with Regulation 346 - General Air Pollution under the Environmental Protection Act. An important tool used to assess compliance with Regulation 346 is the Emission Summary and Dispersion Modelling (ESDM) Report.

All applicants are held accountable for ensuring that:

- As a minimum, a properly prepared ESDM Report is submitted for all the contaminants in common with the sources in the application.
- For a site-wide Consolidated CofA, a properly prepared ESDM Report is submitted for all contaminants emitted by all sources at the facility.
- For applications for a Basic Comprehensive CofA, the ESDM Report must also be submitted for all contaminants. Conditions on the Basic Comprehensive CofA will require that the ESDM Report be maintained on an ongoing basis by the proponent and, in return, will allow for limited operational flexibility.

The Ministry may also choose to assess and update CsofA 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 Air Emissions CofA are discussed below.

### **Criteria 1: Environmental Requirements**

At a minimum, if the relevant environmental protection requirements set out in existing Ministry policies, guidelines and objectives are not included, they may be added to the Certificate of Approval. These requirements include:

- Any relevant environmental protection requirements set out in the key Ministry documents for Air Emissions listed in Appendix A.

### **Criteria 2: Standard Operating Requirements**

At a minimum, the Ministry will assess if the CofA includes up-to-date standard operating requirements. If not already included, the types of requirements that may be added to the CofA include:

- Development and maintenance of an Operation and Maintenance manual relating to the processes with significant potential environmental impacts.
- Notification requirements such as complaint response procedures.
- Record keeping requirements.

### **Criteria 3: Monitoring and Reporting Requirements**

At a minimum, if monitoring and reporting requirements appropriate for the type of facility are not included in the existing CofA, requirements that may be added to a CofA include:

- Conditions related to the performance limits of the equipment, process and/or overall facility related to the emission of contaminants.

In addition, Basic Comprehensive CsofA will include the following requirements:

- Maintenance of the ESDM Report to document ongoing compliance with performance limits.
- Making the Emissions Summary Table that summarizes the facility's emissions and shows compliance with Ministry Point of Impingement limits available for inspection by the public.

- Maintenance of a log documenting and describing all modifications made under the limited operational flexibility conditions.
- Provision of an annual written summary to the Ministry of activities undertaken in the previous calendar year at the facility.

#### **Criteria 4: Consolidation**

During the assessment, the Ministry will consider if the facility has multiple CsofA that can be replaced by a single CofA.

A decision to consolidate Certificates of Approval 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.

The Ministry may request that an application for a Consolidated or Basic Comprehensive CofA be made if:

- emissions from a facility have been targeted under the Selected Targets for Air Compliance (STAC) program (described below) and the Ministry has assessed compliance with Regulation 346 through its review of an ESDM Report prepared for all sources and all contaminants.

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

## **What is the STAC Program?**

The Selective Targets for Air Compliance (STAC) program uses the authority of existing environmental legislation to require companies to submit an ESDM Report to assess compliance with Regulation 346. The detailed information gathered through a STAC review provides the Ministry with a complete inventory of all the contaminant emissions from each targeted facility. The STAC program and the existing Certificate of Approval process work together to require companies to demonstrate that aggregate emissions from a facility comply with Ontario's air standards and guidelines or Point of Impingement limits through Regulation 346.

Once the Ministry has reviewed the ESDM report submitted under the STAC program, and compliance with Regulation 346 has been determined, the company may be requested to submit an application for either a Consolidated or Basic Comprehensive CofA. The advantage of the latter is the limited operational flexibility allowed by the Comprehensive CofA.

## **Air Emissions CsofA Where Existing Approach/Requirements are Appropriate**

It is unnecessary for proponents to use this *Protocol for Updating Air Emissions Certificates of Approval* where the existing approach/requirements are appropriate. These include:

- Facilities that have ceased operating or are no longer in business. The facility owner may submit an application to the Ministry to revoke a CofA.
- Some types of facilities and equipment are associated with minimal environmental impacts and no longer require a Certificate of Approval due to exemptions under regulations. Examples include:
  - Regulation 524/98 provides exemptions for air and noise emissions for residential equipment, construction equipment, cleaning operations using only liquid detergents, fire fighting operations and training, prescribed forestry burns, sewage lagoons and clarifiers, visible light sources, fuel burning equipment for comfort heating, general building ventilation from non-production areas, food and beverage preparation equipment, and some types of mobile equipment;

- Regulation 505/99 provides exemptions for air and noise emissions from race tracks, outdoor events and firearms shooting ranges, vehicles operated within buildings, some types of fuel dispensing equipment and equipment used during a declared emergency.
- Other CsofA issued for routine, well-understood activities with low environmental impact such as diesel generators, paint spray booths, and heating, ventilation and air conditions (HVAC) equipment using natural gas or oil as fuel.

Despite the foregoing, the Ministry retains the authority to review and require new or amended requirements in an existing CofA at any time.

## **APPENDIX A: KEY MINISTRY DOCUMENTS RELATED TO AIR EMISSIONS**

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- ❑ A-1 Combustion and Air Pollution Control Requirements for New Biomedical Waste Incinerators
- ❑ A-4 Crematoria Guideline (guideline is under review)
- ❑ A-5 Atmospheric Emissions from Stationary Combustion Turbines
- ❑ A-7 Combustion and Air Pollution Control Requirements for New Municipal Waste Incinerators
- ❑ A-9 NO<sub>x</sub> Emissions from Boilers and Heaters
- ❑ Interim Design and Review Guidelines for Wood Fired Combustors
- ❑ Guidance for Incinerator Design and Operation, Volume I, General Waste
- ❑ Incinerator Design and Operating Criteria, Volume II, - Biomedical Waste Incinerators
- ❑ Other applicable Ministry guideline documents.

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