



Regulatory Overview for Small Wood Fired Combustors (<3MW)

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Agenda

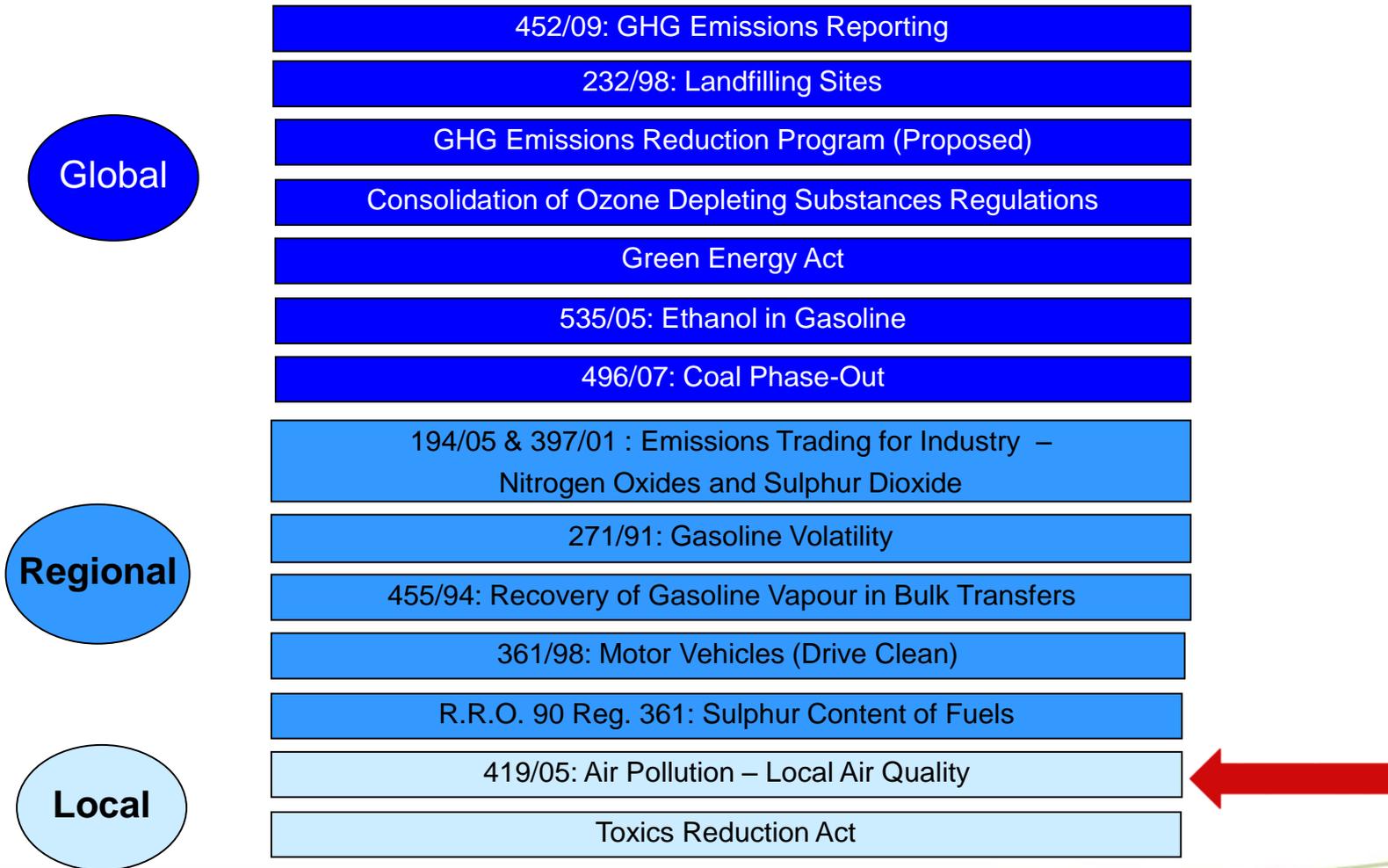


- Ontario's Regulatory Framework
- Environmental Approvals
- ECA Application Review Process
- Ontario Regulation 419/05
- Development of New Guideline for Small Wood-Fired Combustors (<3MW)
- Appendix – MOECC websites for ECA related information

Ontario's Regulatory Framework

- Ontario's regulatory framework ensures that the environment and human health are protected, and that facilities demonstrate compliance with legislative requirements.
- Legislative framework for environmental approvals includes the *Environmental Protection Act (EPA)* and *Environmental Bill of Rights (EBR)*, as well as other Acts and numerous regulations and guidelines.
- Environmental Bill of Rights gives citizens a shared role in protecting the environment by establishing public access to proposed legislation, policies, regulations, and decisions regarding an environmental approval.

Ontario's Regulatory Framework



*Note: 1. All regulations are under the Environmental Protection Act
2. List is not comprehensive

Local Air Quality Regulation 419/05 Compliance Pathways

There are currently **three** compliance approaches but we will only focus on approach 1 for small bioheat projects.

1 Demonstrate **compliance with the air standards** by the phase-in period.

(Assessed using approved air dispersion models or through modelling and monitoring.)

OR

2 Request a **site-specific standard**.

(Available to facilities affected by new or updated requirements. Assessed using approved air dispersion models or through modelling and monitoring.)

OR

3 Register under a **technical standard** for specified contaminants.

(Provided the MOECC has developed a technical standard that applies to the sector and those contaminants.)

Ontario's Regulatory Framework

- Under Ontario's environmental laws, facilities who carry out certain kinds of activities must apply for and obtain an environmental approval(s) before they can construct, operate or upgrade the facility/site.
- Environmental approvals come in many forms and includes, but is not limited to:
 - Environmental Compliance Approval (ECA)
 - Environmental Activity and Sector Registry (EASR)
 - Renewable Energy Approval (REA)
- Environmental approvals ensure that current environmental standards and regulatory requirements are in place to prevent or mitigate environmental impacts.

Environmental Approvals

- Under the current two-path system, facilities receive either an *Environmental Compliance Approval (ECA)* or register their activities through an online *Environmental Activities and Site Registry (EASR)*
- New regulations administered by the MOECC prescribe the requirements for obtaining an ECA and/or registering an activity to the EASR.
- Checklists and consolidated guidance materials set out requirements for the type of information that is to be included for a given ECA application (see Appendix for MOECC websites related to ECA reference information).

Environmental Approvals

- ECA is an approval that covers emissions and discharges related to air, noise, waste and wastewater
- New ECA approval allowed for a multi-media approach to integrate single media ECA applications (i.e., air, noise, waste and wastewater)
- Key features of the ECA:
 - May be a single approval for multiple activities and locations
 - Site-specific and can be tailored to facility or activity and its local environment
 - Flexible operating rules for owners and operators

ECA Application Review Process

Stage 1 – Application Preparation

- Pre-submission consultation with Ministry
- Public consultation
- EA requirements

Stage 2 – Application Processing and Screening

- Submission of application to the Ministry
- Posting of proposal on the Environmental Registry (if required)
- Supplementary review created electronically

Stage 3 – Application Assignment

ECA Application Review Process

Stage 4 – Application Review (Technical)

- Input from other Ministry staff/ municipalities via Supplementary Review
- Review of public comments received (if required)

Stage 5 – Approval Decision (approve or refuse)

Stage 6 – Appeal Provisions

- Applicant may appeal Director's decision
- Public may appeal (applications posted under the EBR)

Ontario Regulation 419/05

Air Pollution – Local Air Quality

- Part 1 – Interpretation and Application
- Part 2 – Contaminant Concentrations and Dispersion Modelling
 - Dispersion Models
 - Contaminant Concentration Standards
 - Emission Summary and Dispersion Modelling Reports
 - Technology Reports
 - Notice of Possible Contraventions
 - Site-Specific Contaminant Concentration Standards
 - Technical Standards for Classes of Facilities
- Part 3 - Miscellaneous

Ontario Regulation 419/05

Air Pollution – Local Air Quality

Points of impingement

“2. (1) A reference in this Regulation to a point of impingement with respect to the discharge of a contaminant does not include any point that is located on the same property as the source of contaminant.

(2) Despite subsection (1), a reference in this Regulation to a point of impingement with respect to the discharge of a contaminant includes a point that is located on the same property as the source of contaminant, if that point is located on,

(a) a child care facility; or

(b) a structure, if the primary purpose of the property on which the structure is located, and of the structure, is to serve as,

(i) a health care facility,

(ii) a senior citizens' residence or long-term care facility, or

(iii) an educational facility.”

Development of New Guideline

- MOECC developed an Interim Design & Review Guideline for Wood-Fired Combustors in 1990
- The guideline required an update to reflect new technology developments
- Two new guidelines were needed, one for large wood-fired combustors (≥ 3 MW) and one for small wood fired combustors (< 3 MW)
- Guideline A-13 for large wood-fired combustors (≥ 3 MW) was issued in January 2015
- New guideline for small wood-fired combustors (< 3 MW) is in development

What work did we do?

- Research program was developed to gather information to inform the new small wood-fired combustor guideline
- Partnership between the MOECC, MNRF, Confederation College's OPG-BLRC and NRCan
- Gathered information pertaining to: i) wood fuel characteristics, ii) combustion/gasification technologies, iii) air emissions performance indicators, and iv) international best practices
- Key activities included the survey of equipment manufacturers and testing/research at OPG-BLRC
- Voted to adopt ISO biomass fuel quality standards

What else is happening?

- A rationale document is being developed to accompany the new guideline for small wood-fired combustors:
 - ✓ Market potential in Ontario
 - ✓ Overview of wood combustion science and theory
 - ✓ Wood fuel characteristics and quality standards
 - ✓ Jurisdictional review and combustion equipment standards
 - ✓ Modern small wood-fired combustor equipment design
 - ✓ Overview of air emission measurement data
 - ✓ Air emission compliance assessment options
- Technical Bulletin on Continuous Monitoring Systems for Wood-Fired Combustors is also in development

What's Next?

- A draft version of the small wood-fired combustor guideline will be shared with selected external technical specialist stakeholders for review and comment
- The guideline will then be posted to the EBR for public comment
- The final version will subsequently be posted and become available for use

Any Questions?

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Appendix – MOECC websites

- <https://www.ontario.ca/page/environmental-compliance-approval>
- <https://www.ontario.ca/document/guide-applying-environmental-compliance-approval>
- <https://www.ontario.ca/document/checklist-technical-requirements-complete-environmental-compliance-approval-submission>
- <https://www.ontario.ca/document/guideline-10-procedure-preparing-emission-summary-and-dispersion-modelling-esdm-report>
- <https://www.ontario.ca/document/guideline-11-air-dispersion-modelling-guideline-ontario>