

O. Reg. 419/05: Air Pollution – Local Air Quality: 2009 Proposed Regulatory Amendments

<http://www.ene.gov.on.ca/en/air/ministry/index.php>

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Purpose of Presentation

The purpose of this presentation is to provide an overview of recent proposals to amend Ontario Regulation 419/05: Air Pollution – Local Air Quality (O. Reg. 419/05) posted by the Ministry of the Environment (MOE) on the Environmental Registry under the Environmental Bill of Rights (EBR) in June 2009.

IMPORTANT NOTE: These slides are intended to be a brief summary of some of the amendments to Ontario Regulation 419/05. Information contained in this presentation is only for information purposes. Interested parties must refer to Regulation 419/05 for a comprehensive understanding of the legal requirements of facilities. Ontario Regulation 419/05 as amended will take precedence in the event of a conflict between the Regulation and this document. The Regulation 419/05 web-site contains comprehensive information a link to the Regulation.
<http://www.ene.gov.on.ca/en/air/ministry/index.php>.

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EBR Postings on Proposed Regulatory Amendments

In June 2009, MOE posted the following proposals on the EBR:

- EBR#010-6587, titled "PROPOSED AMENDMENTS TO O. REGULATION 419/05 AIR POLLUTION: LOCAL AIR QUALITY including a Sector-Based Approach for Improving Air Pollution".
 - This is a general overview of the proposed sector-based approach and includes descriptions of other proposed amendments meant to clarify the regulatory requirements;
- EBR#010-6588, titled "PROPOSED SECTOR-BASED APPROACH TO MANAGING AIR POLLUTION IN THE FOUNDRY SECTOR UNDER O. REGULATION 419/05".
 - This is the proposed technical standard for the Foundry Sector; and
- EBR#010-6589, titled "PROPOSED SECTOR-BASED APPROACH TO MANAGING AIR POLLUTION IN THE FOREST PRODUCTS SECTOR UNDER O. REGULATION 419/05".
 - This is the proposed technical standards for the Forest Products Sector (which includes wood products, pulp and paper and sawmills).

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Background

- Under O.Reg.419/05 air standards are set based on health and environmental effects, without consideration of technical or economic issues.
- Currently under O.Reg.419/05 there are two options available to facilities:
 1. Meet air standards by the specified time lines.
 2. If a facility is unable to meet an air standard by the specified time line, a request for a site-specific alteration of the standard may be submitted.

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Background

- Requests for alterations of the standards are considered on a site by site basis resulting in a site-specific contaminant-based standard.
- Many facilities within a sector may have common or similar implementation challenges meeting new or updated air standards.
- Proposed amendments could allow the Minister the authority to establish sector-based Technical Standards with public consultation.
- **Proposed new option for compliance:**
 - **A sector-specific technical standard that could apply to facilities in that sector who register with MOE.**

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Technical Standards for Sectors

- Proposed sector-based technical and operational requirements would replace requirements to comply with air standards as well as certain other requirements under the current O. Reg. 419/05.
- Technical standards would be published in a “Technical Standards publication”. This document entitled “Sector-Based Technical Standards to Manage Air Pollution” dated [insert date], as amended from time to time, is published by the Minister and would be available through a website maintained by the Ministry on the Internet and through the Ministry’s Public Information Centre;
- “technical standard” includes, with respect to the Technical Standards publication and a facility, any requirement set out in that publication relating to technology used at the facility, the operation of the facility, the monitoring and reporting of information relating to the facility, and any other related matter;

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Technical Standards for Sectors

- MOE proposes that the Minister must be of the opinion that, with respect to the Technical Standards publication and each class of facilities to which a technical standard applies and each contaminant to which that technical standard applies,
 - there are at least two facilities in that class that are located in Ontario for which it is not technically or economically feasible to comply with one or more air standards,
 - at least two facilities in the class have the same type of sources of contaminant,
 - compliance with the technical standard that applies to the class and to the contaminant, is technically and economically feasible with respect to at least one facility, and
 - will permit efforts that would otherwise be made to comply with section 19 or 20 to be put to better use to protect the natural environment,
 - compliance with the technical standard that applies to the class and to the contaminant will reduce the regulatory burden, and
 - the technical standard is more efficient than having the Director consider separate requests under section 32 for approval of alterations to the standard for the contaminant that would otherwise apply to facilities in the class.

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Technical Standards for Sectors

- It would be the Minister's authority to publish a technical standard for a sector. If the MOE were to develop a technical standard, the MOE would follow an approach similar to the site-specific altered standards process including:
 - Identification of common significant sources of contaminant (s) of concern;
 - Assessment of technology benchmarks for the sector (including a jurisdictional review);
 - Consideration of economic issues including cost-effectiveness;
 - An action plan to implement technical and/or operational improvements for the sector with associated timelines

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Technical Standards for Sectors

- The technical standard that is set out in the Technical Standards publication must set out the following:
 - the classes of facilities the technical standard applies (identified with reference to NAICS codes),
 - which contaminants the technical standard applies to,
 - which sources of contaminant the technical standard applies to,
 - the steps that shall be taken to comply with the technical standard, and
 - the time periods, if any, within which the steps specified shall be taken.

Technical Standards for Sectors

- A proposed Technical Standard would be established through public consultation and may also include:
 - List of significant sources of the contaminant(s);
 - Technical methods or good engineering practices that would minimize POI concentrations and/or emissions;
 - Site-specific options to minimize POI concentrations and/or emissions;
 - Operating and Maintenance requirements for equipment or plant processes;
 - Reporting requirements; and
 - Timelines to implement requirements.

Foundry Sector Technical Standard

Foundry Sector (NAICS 3315)

1. Identification of major emission sources:

- Furnaces to melt metal, metal treatment, pouring of liquid metal and its cooling
- Trimming, grinding, cutting, finishing and media blasting of castings
- Mould production (hot and warm box)
- Core production (shell core)
- Casting (including cooling and shakeout)
- Material Handling (including scrap, charge, sand and slag handling)
- Sand reclamation

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Foundry Sector Technical Standard

2. Certain sources of contaminant(s) would have to implement the following technical requirements (please see the technical standard for more precise information) to manage air emissions from major emission sources:

- Baghouse with automatic cleaning of bags or cartridges and leak detection and alarms to notify operators if there is a leak;
- Equivalent pollution control technology approved by the Director;
- Material substitution and process changes;
- Mechanical ventilation assessment;
- Operational practices such as a Best Management Plan for Industrial Dust Sources;

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Foundry Sector Technical Standard

3. Operating, Maintenance and Monitoring Requirements:

- Documented operating procedures:
 - for start-up, shut-down and malfunctions
 - Specified operating ranges for key parameters
 - Inspections, cleaning, calibration, corrective actions and escalation of repeat problems
- Complaint Response procedure

4. Reporting Requirements

- Registration
- Record retention
- Notification of complaints and if something goes wrong

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Foundry Sector Technical Standard

5. Implementation Timeline:

- 1 year to register
- Approximately 1-2 years: implement operational practices
- 2 years to install technical control equipment
- 4 years to conduct mechanical ventilation assessment
- Immediate implementation for new facilities and major modifications

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Forest Products Sector Technical Standard

- Forest Products Sector:
 - Sawmills (NAICS 3211)
 - Pulp and Paper (NAICS 3221)
 - Veneer, Plywood and Engineered Wood Products (VPE) (NAICS 3212)
- 1. Identification of major emission sources:
 - Sawmills
 - Lumber kilns
 - Pulp & Paper
 - Chemical Pulp (Kraft) mills
 - Chemical Pulp (Sulphite) mills
 - Mechanical Pulp mills
 - Wood-fired combustors
 - VPE
 - Dryers
 - Lumber kilns
 - Fiberboard atmospheric refiners
 - Wood-fired combustors

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Forest Products Sector Technical Standard

2. Certain sources of contaminant(s) would have to implement the following technical requirements (please see the technical standard for more precise information) to manage air emissions from major emission sources:
 - Operational practices for dry dryers such as limiting inlet temperatures and inlet moisture content of furnish;
 - Re-circulation of dryer exhaust;
 - Optimize operational practices to minimize emissions regarding moisture consistency, flake size and moisture content;
 - Operational practices for lumber kilns to reduce average moisture variability; and
 - Operational practices for green sorting.

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Forest Products Sector Technical Standard

3. Operating, Maintenance and Monitoring Requirements:

- Documented operating procedures:
 - for start-up, shut-down and malfunctions
 - Specified operating ranges for key parameters
 - Inspections, cleaning, calibration, corrective actions and escalation of repeat problems

4. Reporting Requirements

- Registration
- Record retention
- Notification of complaints and if something goes wrong

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Forest Products Sector Technical Standard

5. Implementation Timeline:

- 1 year to register
- Approximately 1-5 years: implement operational practices
- 5-10 years to install dryers with enhanced temperature control
- Immediate implementation for new facilities and major modifications1 year

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Other Proposed Amendments

- Other proposed amendments to O. Reg. 419/05 include:
 - A proposal to update the facilities captured in the North America Industrial Classification System (NAICS) 332 of Schedule 5 of O. Reg. 419/05
 - Other technical, administration amendments or consequential amendments to O. Reg. 419/05 or other regulations required to support the proposal; and
 - Other technical, administration amendments or consequential amendments to O. Reg. 419/05 necessary to further clarify and support the existing regulatory requirements and its implementation.

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Other Proposed Amendments

- Schedules 4 and 5 were intended to capture higher risk facilities where the nature of the contaminants emitted are of greater concern to human health and the environment.
- MOE has conducted outreach activities for the sectors listed in Schedules 4 and 5. Many facilities that are captured by the NAICS code 332 Fabricated Metal Product Manufacturing do not meet the criteria MOE originally intended for these sectors.
- Many are small to medium sized businesses that likely have minimal impact to the environment.
- The MOE is proposing to revoke NAICS code 332 from Schedule 5 and replace it with the following two six digit NAICS codes:
 - 332810 – Coating, Engraving, Heat Treating and Allied Activities
 - 332999 – All Other Miscellaneous Fabricated Metal Product Manufacturing

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Other Proposed Amendments

- There may be other facilities identified in Schedules 4 and 5 with similar circumstances. MOE is considering options on how to address this situation:
- Option 1: propose a new notice authority to remove facilities from Schedules 4 and 5. This proposed new notice would allow the director, under the appropriate circumstances set out in the regulation, to remove a facility from Schedules 4 or 5.
- OR
- Option 2: propose to prescribe conditions which would remove small to medium sized businesses that meet the description set out in the regulation from Schedule 4 or 5.

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Ontario Regulation 336: Air Contaminants from Ferrous Foundries

- Ontario Regulation 336: Air Contaminants from Ferrous Foundries specifies certain technology to control discharges of particulate matter.
- O. Reg. 336 is out-of-date and is proposed to be revoked. Any requirements that are still relevant would be transferred into O. Reg. 419/05.
- The proposed new sector-specific requirements would be more relevant and up to date for this sector.

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Modelling Updates

- US EPA no longer lists ISCPRIME as a preferred dispersion model – ISCPRIME is now listed as an alternative model.
- For more information on US EPA models, please see the U.S. EPA technology transfer network:
www.epa.gov/scram001/dispersionindex.htm.
- Hence, MOE proposes to phase-out the use of ISCPRIME as an approved dispersion model by February 1, 2012.

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Other Proposed Amendments

- Amendments to section 10 of the regulation to clarify that operating conditions must include start up, shut down and process malfunctions (upsets), if these conditions results in the highest concentration of a contaminant at a POI.
- Proposed amendments to the notice in section 10(2) that allows the Director to request an ESDM report to be prepared using either an operating condition that reflects normal conditions, operating conditions that reflect start up, shut down or malfunctions; or operating conditions that are based on last year's production.
- A proposal to clarify section 19(2) of the regulation to recognize that any approved dispersion model, including the more advanced US EPA models, can be used to assess compliance with the standards in Schedule 2.

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Other Proposed Amendments

- A proposed exemption from the ESDM report requirements for facilities that are listed in Schedules 4 or 5 and emit only products of combustion from natural gas or propane.
- A proposal for a new notice to clarify source parameters used as inputs into the approved dispersion model.
- Clarification that any ESDM report (submitted under section 22) prepared by a facility that is affected by a new or updated air standard or a new model that is completed one year before a new requirement is phased in, must prepare that ESDM report as if the new requirements were in place.
- Clarification that this regulation does not apply to discharges of heat, sound or vibration.

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Other Proposed Amendments

- Clarification that any ESDM report that showed an exceedence and is required to “refine” its emissions and operating conditions (as per section 12 of the regulation), must contain both operating scenarios listed in section 10(1) of the regulation (i.e. the approved dispersion model must be run using operating conditions that show the maximum POI (as per paragraph 1 of 10(1)), and operating conditions based on last year’s production rate (as per paragraph 2 of 10(1))).
- Clarification that the definition of POI includes assessment of dwellings that are located on site.
- Other necessary amendments to clarify technical requirements and/or improve compliance and enforcement.

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Other Clarifications

- Correction to the formula for mercaptans.
- It is proposed to have these draft amendments take effect on February 1, 2010. However, removal of Schedule 1 standards and all references to section 18 of the regulation would take effect April 1, 2010.
- Proposed amendments to section 39.3 to clarify that this includes anything submitted to the Director or a provincial officer.

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Questions?

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