

Legislative  
Assembly  
of Ontario



Assemblée  
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de l'Ontario

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# STANDING COMMITTEE ON PUBLIC ACCOUNTS

## **AIR QUALITY PROGRAM**

(Section 3.04, 2004 Annual Report of the Provincial Auditor)

1st Session, 38th Parliament  
54 Elizabeth II

Legislative  
Assembly  
of Ontario



Assemblée  
législative  
de l'Ontario

The Honourable Alvin Curling, MPP,  
Speaker of the Legislative Assembly.

Sir,

Your Standing Committee on Public Accounts has the honour to present its Report  
and commends it to the House.

Norman Sterling, MPP,  
Chair.

Queen's Park  
July 2005

STANDING COMMITTEE ON PUBLIC ACCOUNTS

MEMBERSHIP LIST

1<sup>st</sup> SESSION 38<sup>th</sup> PARLIAMENT

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## **PREAMBLE**

The Auditor General reported on the Ministry of the Environment's Air Quality Program in Section 3.04 of the *2004 Annual Report*. The Standing Committee on Public Accounts (the Committee) held hearings on this audit report on February 17, 2005 with representation from the Ministry of the Environment (the Ministry/MOE). The Committee endorsed the Auditor General's\* findings and recommended that the Ministry implement the recommendations in Section 3.04.

The Committee would like to thank the Deputy Minister and other Ministry officials for their attendance at these hearings. Also, the Committee acknowledges the assistance provided during the hearings by the Office of the Auditor General (the Auditor), the Clerk of the Committee, and the Research Officer from the Ontario Legislative Library's Research and Information Services Branch.

This report includes introductory information for each section based directly on the Auditor's report, followed by an overview of the hearings and finally the Committee's recommendations.

## **Ministry Response to Committee's Report**

The Committee requests that the Ministry of the Environment provide the Committee Clerk with a comprehensive written response to this report within *120 calendar days* of the tabling with the Speaker, Legislative Assembly of Ontario. If the Committee is of the opinion that additional time is required for a response to a particular recommendation, an alternative timeframe will be indicated. Finally, it would be appreciated if the Ministry would keep the Committee's clerk informed of its progress in this regard.

## **1. BACKGROUND**

The Ministry has established several programs to monitor emissions and concentrations of air pollutants, which include: an ambient air-monitoring network, with reporting on the Air Quality Index; Certificates of Approval to limit the discharge of contaminants; emissions reduction caps (fossil fuel burning electric power plants); the Drive Clean program; the mobile Smog Patrol for vehicle emission; and an environmental SWAT team of enforcement officers that inspects selected industrial sectors.

## **2. AUDIT OBJECTIVES AND CONCLUSIONS**

The audit objectives were to assess whether the Ministry had adequate procedures in place to:

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\* Auditor General, formerly the Provincial Auditor.

- measure and report on its effectiveness in fulfilling its mandate to protect the environment with respect to air quality and to identify areas where corrective actions were required; and
- ensure compliance with legislation and with Ministry policy.

The audit fieldwork was substantially completed in April 2004.

### *Audit Conclusions*

The Ministry has implemented several key regulatory and operational initiatives to reduce air contaminants; however, the Auditor noted in 2004 that, notwithstanding these initiatives, procedures needed strengthening to adequately monitor and enforce compliance with legislation and Ministry policy, and to meet national and international commitments. Areas that were identified for improvements include the following: air quality standards for various pollutants; Certificates of Approval; the Air Quality Index; the Emissions-Reduction Trading Program; the Drive Clean Program; and the SWAT inspection program.

The Ministry responded to the audit report indicating that many of the Auditor's recommendations are being addressed through several program initiatives, policy development, and inspections and audit activities. The Ministry indicated that resources are being applied to the highest-risk emitting sources and thereby contributing most to environmental improvements. The Ministry listed several initiatives, for example, extending emission limits for nitrogen oxide and sulphur dioxide, developing a risk-based approach to update Certificates of Approval, a federal/provincial joint effort to develop a new health-based National Air Quality Index and a full review of the Drive Clean program.

## **DETAILED AUDIT OBSERVATIONS**

### **3. PROGRAM POLICY AND PLANNING**

#### **3.1. Strategic Planning Process**

The Ministry has committed to a number of pollution reduction targets through national and international agreements such as the *Kyoto Protocol*. Based on these agreements, the Ministry projected emission levels for various pollutants to 2015, and concluded that without further action the province will not meet its air quality targets. In December 2002, the Ministry proposed a Clean Air Plan for selected industry sectors to reduce emissions of nitrogen oxides and sulphur dioxide to address the expected shortfall in meeting its targets but as of April 2004 the proposal remained in the consultation stage.

The Auditor recommended that to help ensure cleaner air in Ontario and to meet its agreed-upon national and international commitments, the Ministry should, as a first step, review the effectiveness of its current pollution reduction strategies and develop an overall plan, complete with various alternatives, estimated costs, and timelines.

In its 2004 response, the Ministry pointed to a number of strategic planning initiatives, specifically:

- in May 2004 Ontario signed a Memorandum of Understanding with the federal government on climate change, and federal-provincial work is underway to design programs and requirements for the reduction of greenhouse gases;
- to meet Canada-wide air standards for ozone and particulate matter, MOE announced an Implementation Plan in June 2004 to reduce emissions by, for example, committing to clean energy sources and the closure of coal-fired generating stations;
- public consultations on actions to reduce ozone-depleting substances in line with Canada's National Action Plan; and
- federal/provincial-industry initiatives to reduce volatile organic compounds from consumer and commercial products sold in Canada.

### **Committee Hearings**

The Committee addressed several subject areas in relation to strategic planning, most notably international and Canadian initiatives, the Ministry's Industry Emission Reduction Plan, the development of air quality standards/guidelines, and updating air-dispersion models.<sup>1</sup>

#### *Pollution - International Implications*

In conjunction with the development of a health-based National Air Quality Index, recent focus has been on provincial involvement in the *Kyoto Protocol*.<sup>2</sup> As of February 2005 Canadian provinces were continuing the discussions on identifying a mechanism for implementing Canada's obligations under the Kyoto Protocol.<sup>3</sup> A Canadian plan was prepared to meet Kyoto obligations; however, many details are outstanding and discussions were continuing at the time of the hearings.<sup>4</sup>

### **Trans Border Pollution**

Coal-fired power stations are a major source of emissions contributing to smog, acid rain and greenhouse gas (e.g., nitrogen oxides, SO<sub>2</sub> emissions, mercury emissions).<sup>5</sup> In turn, these power stations have a significant impact on local, regional and global air quality.<sup>6</sup> In the case of global air issues, jurisdictions must consider broader climate factors and ozone-depleting substances.<sup>7</sup>

The matter of the potential improvement to air quality resulting from the closure of provincial coal-fired generation plants was addressed in relation to continental west to east air movement patterns.<sup>8</sup> The province is working through the Canada-U.S. Air Quality Committee to encourage the U.S. to reduce pollution that causes regional air issues, resulting from NO<sub>x</sub> and SO<sub>2</sub> emissions.<sup>9</sup> The U.S. has taken action through the following:<sup>10</sup>

- the *NO<sub>x</sub> SIP Call* is a recent initiative to reduce NO<sub>x</sub> emissions. It is anticipated that there will be NO<sub>x</sub> reductions from U.S. sources; and
- U.S. legislation provides for the reduction of SO<sub>2</sub> emissions and SO<sub>2</sub> emissions caps in the electricity sector.

The U.S. Clean Air Interstate Rule will further tighten the limits on the total emissions of both NO<sub>x</sub> and SO<sub>2</sub>; however, the regulations are silent on how the emission reductions will be achieved.<sup>11</sup>

Studies are being conducted on the implication of plant closures in Ontario, but a definitive numerical answer to how the air quality will improve is not available.<sup>12</sup> In the interim, power stations are encouraged to install traps and mechanisms to reduce particulates, and the province has introduced regulations to cap total emissions.<sup>13</sup>

### *Ministry Initiatives*

The Committee requested clarification on the Ministry's various initiatives under the Air Quality Program. The Ministry provided supplementary information on the Industry Emission Reduction Plan and the Air Standards Implementation Plan, which are addressed in relevant sections of this report.

### Related Initiatives

The province's Five-Point Plan establishes new emissions standards for air pollutants, many of which are related to volatile organic compounds.<sup>14</sup> The plan's objective is for the acceleration in energy conservation efforts to address greenhouse gas emissions, by targeting large emitters through reductions in smog-causing emissions. The consultation process is complete, and the province has posted draft regulations for emission reductions, covering major industrial emitters (e.g., emission reductions for NO<sub>x</sub> and SO<sub>x</sub>) in the Environmental Bill of Rights registry.<sup>15</sup>

In conjunction with this initiative, the Committee considered various matters related to reductions in emissions, for example:<sup>16</sup>

- public consultations to address the reduction of ozone-depleting substances;
- the joint provincial-industrial sectoral initiative on the development of options for the reduction of volatile organic compounds from consumer and commercial products;
- an action plan to reduce greenhouse gas emissions by having facilities reporting emissions with the objective of measuring and managing for reductions, and provincial pilot projects to encourage the reduction of these gases (within the government and in partnership with some of the broader public sector and private sector stakeholders);

- a steel sector/Ontario Memorandum of Understanding (representing the Steel Association of Canada and the federal government) encouraging the steel sector to reduce its greenhouse gas emissions; and
- a provincial ethanol initiative to reduce greenhouse gases by ensuring that at least 5% of the gasoline mixture sold in Ontario is composed of ethanol.

### 3.2. Air Quality Standards

Under the regulatory framework of the *Environmental Protection Act*, Ontario's air quality standards prescribe the maximum allowable concentrations for numerous potentially harmful air contaminants. In addition, the Ministry has emission guidelines for 211 air pollutants, which, as guidelines, are not legally enforceable. However, a Certificate of Approval may be used to legally enforce compliance with these guidelines.

The Auditor expressed concern that fewer than half of the high-priority substances that required new or revised standards had been addressed. The Ministry had reduced allowable concentration limits for 75% of the high priority substances that had been reviewed. The Auditor noted that, where there were reductions in standards and guidelines, the new limits were often reduced to less than 10% of the old limits. In addition, there were no air quality standards or guidelines created or revised since several standards were updated in September 2001. In 2002 the Ministry initiated a pilot project to test some broad concepts; however, at the time of the 2004 audit this project was ongoing.

The air dispersion models used to determine ground-level concentrations are a concern because this methodology has been in place for 30 years, and may under predict actual readings by up to 20 times in contrast to modern models. The Ministry has proposed replacing the air dispersion models with more up-to-date methodologies. However, at the time of the audit, the Ministry was still at the stage of developing a guideline for air dispersion modeling, which would require approvals and public consultation.

The Auditor recommended that to protect human health and the environment, the Ministry should evaluate the results of the pilot project on the implementation of air quality standards and consider implementing the associated risk management framework; develop and update its air quality standards and guidelines on a timely basis; and consider using up-to-date air dispersion models to assess the impact of planned revisions to air quality standards and guidelines.

The Ministry's 2004 response noted that it had initiated consultations on new air standards, new air dispersion models, and a risk-based decision-making process. A pilot project to develop new air quality standards resulted in a proposed risk-based decision-making process that was still subject to public consultation.

## Committee Hearings

The Ministry explained that its Five Point Plan has several key components; namely, improved air-dispersion models and a risk-based decision-making approach to assist with the implementation of more stringent air standards.<sup>17</sup> Advancements have been made with respect to air quality standards, combined with new procedures for the identification and ranking of substances by priority status, and the updating of air-dispersion models.<sup>18</sup> In February 2005, for example, the Ministry posted a draft regulation on decreasing allowable emission limits for the period 2007-2015 for specified smog-causing pollutants in seven industrial sectors.<sup>19</sup>

Following the hearings the Ministry provided a further update on the Implementation Plan, which is addressed in the next section.

### *Air Standards Implementation Plan*<sup>20</sup>

The implementation of provincial air standards is central to the Five Point Plan for Cleaner Air announced on June 21, 2004. The Plan includes new air standards for harmful pollutants; achieving a better idea of industrial emissions through improved technology; and a faster, risk-based approach to implementing new air standards.

The Implementation Plan proposes to update the existing regulatory framework based on air quality standards; replace dated air dispersion models with improved models from the United States Environmental Protection Act (USEPA); introduce a risk-based decision making process to permit site-specific solutions regarding implementation issues; and to enhance enforceability. According to the Ministry, up-to-date, scientifically based, enforceable air standards are necessary tools for the protection of air quality at the community level for all Ontarians.

The components of the provincial plan were posted on the Environmental Bill of Rights (EBR) registry for comment between June and October 2004. The following features were included: proposed regulatory amendments to the "General - Air Pollution Regulation 346"; new standards for 28 pollutants; a proposed "Air Dispersion Modelling Guideline for Ontario" providing more accurate assessment of health and environmental impacts; a proposed "Guideline for the Implementation of Air Standards in Ontario" to improve the implementation of these standards while addressing the risk at the community level; and technical issues/costs to industry; and public transparency.

Based on public consultations, the Ministry re-evaluated its proposals and proposed to extend phase-in periods for new models/standards; introduce a staged approach for the implementation of new models and compliance reports by targeting the main higher risk sectors; and to alleviate the burden on small- to-medium-sized businesses by delaying the use of the new air dispersion models until 2020.

The Ministry is currently posting the following items on the Environmental Bill of Rights Registry for consultation – *A Guideline for Emission Summary and*

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*Dispersion Modelling (ESDM) Reports, and proposed revisions to Odour-based Ambient Air Quality Criteria and Development of an Odour Policy Framework.*

### Risk-Based Methodology

The Committee enquired about the merit of making energy decisions and related environmental decisions within a risk-based approach.<sup>21</sup> It was noted that the province is at a very critical period with regard to investments in the energy sector, and that it is necessary to identify potential risks and benefits resulting from such decisions.

Ontario is considering programs for all economic sectors, in conjunction with caps in the electricity sector.<sup>22</sup> The focus has been on facilities with emissions of more than 1,000 tonnes of NO<sub>x</sub>/year and in excess of 1,000 tonnes of SO<sub>2</sub>/year. Within this benchmark for example, the main emitting sectors include the chemical and the pulp and paper sectors.<sup>23</sup>

### Committee Recommendations

#### Implementation Plan

The Ministry's air standards implementation plan has proposed a staged approach to implementing new air quality standards. This approach is in consideration of the economic and technological factors that need to be taken into account.<sup>24</sup> The Ministry also proposed a risk-based decision making process to permit site-specific solutions to assist companies in the implementation of the new standards.<sup>25</sup>

The Committee therefore recommends that:

**1. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the status of its air standards implementation plan, with attention to the implications for air quality and the affected parties over the immediate and long-term.**

**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

#### Air-Dispersion Modeling

At the time of the 2004 audit, the Ministry was developing guidelines for air dispersion modeling ("Air Dispersion Modelling Guideline for Ontario") to provide more accurate assessments of health and environmental impacts. The Ministry explained that it is moving forward with updating these models, and considering U.S. EPA models that have the capacity to evaluate the impact of industrial facilities on the local environment.<sup>26</sup> The Ministry proposed a phased approach to the implementation of new air dispersion models by targeting the

main high risk sectors and delaying the use of new air dispersion models by small to medium sized companies until 2020.

The Committee therefore recommends that:

**2. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the status of its plans to update provincial air-dispersion modeling and the expected impact that the phased approach will have on local air quality during the phase in period.**

**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

### **3.3. Certificates of Approval**

A Certificate of Approval is required under the *Environmental Protection Act* for discharging a pollutant into the environment, legally binding emitters to the Ministry's air quality guidelines and operating/reporting requirements. The Auditor reviewed the Certificate of Approval process and noted that the necessary emission estimation reports are being submitted and reviewed by the Ministry before issuing a Certificate. However, concerns were noted with respect to the management of MOE files, specifically evidence of out-of-date and inconsistent information, incomplete records, and processing delays.

The Auditor recommended that the Ministry should improve its information systems so that a periodic risk-based assessment can be conducted on all Certificates of Approval to determine the extent to which each certificate needs to be updated to reflect significant changes in air quality guidelines; develop a checklist to help ensure that all new and updated certificates include standard provisions for compliance with regulations, guidelines, government policies, and other requirements; and strengthen procedures for processing applications in a timely manner.

The Ministry responded in 2004 with commitments to the following:

- the development of a risk-based/performance management approach to issuing approvals;
- building on the risk-based/performance management approach for inspections (requirement to categorize the regulated community into different risk categories) focusing on high-risk applications;
- the establishment of an approvals process with a review function for high-risk sectors;
- improvements to information systems; and

- the development of a checklist to assist Ministry reviewers, for example, to ensure that Certificates of Approval include relevant provisions vis-à-vis compliance with regulations, guidelines, and government policies.

## **Committee Hearings**

### *Risk-Based Management Approach*

The Ministry is developing a risk-based performance management approach for issuing approvals.<sup>27</sup> This methodology will categorize the regulated community into risk categories, with an approvals process that uses a review function targeting high-risk sectors.<sup>28</sup> Those sectors with the greatest risk include the metals/chemicals, and the pulp and paper industry.<sup>29</sup> It is acknowledged that a risk-based approach for the issuance and update of Certificates would require system enhancements.

A number of pilots have been used and the Ministry has implemented several internal risk-based approaches to promote compliance. The present framework is comprised of the following inspection components:<sup>30</sup>

- Sector Inspection and Enforcement Unit - this Unit, being part of the SWAT Team, conducts high-risk, sector-focused inspections with an emphasis on flagrant or repeat violators (e.g., certain petrochemical industries).
- District Inspections - in the 2004-05 fiscal year MOE introduced a risk-based approach at the District inspection level, and it continues to build on this initiative as it analyzes the inspection outcomes.

The Ministry recognizes that to come into compliance, industry and small business have challenges, which include costs.<sup>31</sup> In conjunction with Ministry efforts to work with industry associations through seminars, the Committee highlighted the need to assist the private sector in achieving operational benefits, specifically energy efficiency using available technology.<sup>32</sup>

### *Managing Certificates*

The Committee enquired about the status of old Certificates which may be out-of-date due to changing circumstances on the operational and technological sides. At issue, is whether a Certificate is current and the business is compliant. As Certificates come up for renewal or amendment, they are checked based on Ministry protocols and procedures:

- Ministry protocols ensure that updated Certificates of Approval will incorporate current environmental standards and procedures and updated Ministry standards;
- the standards and procedures are posted on the Environmental Registry to ensure that the regulated community is aware of formal MOE requirements;
- to facilitate the enforcement the Ministry developed standard “terms and conditions” for inclusion in all Certificates of Approval representing consistency in standards and wording;

- an MOE checklist provides assistance in the application of the protocol (terms and conditions) to ensure consistency of action on all Certificates; and
- the Ministry's Field Alert Program ensures that following a facility inspection, the Environmental Assessment and Approvals Branch will be notified of the need for a Certificate update or the issuance of a new Certificate.

In addition to the above measures, follow-up may trigger abatement action as a result of the SWAT program's inspection of risk-based sectors (areas with potential risk to human health or the environment), and/or a Pollution Incident Report filed with a district office to SWAT or to the MOE Spills Action Centre. Approximately 8,000 new and updated Certificates are processed each year.<sup>33</sup>

### **Committee Recommendation**

#### **Risk-based Methodology**

The commitment to a risk-based performance management approach for issuing Certificates of Approval was undertaken to address the Auditor's recommendation. The necessary components to which the Ministry committed include a risk-based/performance management approach for inspections; a review function for high-risk sectors; improvements to information systems; and the development of a checklist to assist the Ministry review process.

The Committee therefore recommends that:

**3. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the implementation of its risk-based performance management approach for issuing Certificates of Approval. The report should address such features as the review function for high-risk sectors, improvements to information systems, and the Ministry review process for Certificates of Approval.**

**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

## **4. AIR QUALITY MONITORING**

### **4.1. Air Quality Index**

The Air Quality Index (AQI) provides a rating for outdoor air quality. The Index has five categories based on the level of six airborne pollutants (e.g., carbon monoxide, ground-level ozone) and a measurement of concentration levels, represented in an AQI value.

The Auditor recommended that to better inform the public of the health risks associated with air pollution so that vulnerable individuals can take precautionary

measures, the Ministry should review the Air Quality Index process and consider the following: revising the descriptive ratings so that for all pollutants measured, an air quality rating of poor is imposed at the point where the standard is exceeded; including the cumulative health impacts associated with simultaneous exposure to the multiple pollutants; and re-examining the standards for each pollutant in the AQI and incorporate the most current health science regarding the effects of airborne contaminants.

The Ministry responded to this recommendation by reviewing the descriptive ratings of the province's AQI to address poor thresholds and their relationship to Ministry and/or federal air quality standards. Secondly, MOE is participating in the development of a new national health-based National Air Quality Index which would include cumulative health impacts associated with multiple pollutant exposure.

### **Committee Hearings**

The Committee focused on several related aspects; namely, the science of monitoring and measuring pollutants, trans-border pollution, and the impact of air quality on health.

#### *Air Quality Monitoring, Modelling and Measurement*

The Ministry indicated that the province's AQI represents the state of science in monitoring and reporting, and in addition, consideration is being given to improvements in its monitoring technology and descriptive ratings.<sup>34</sup> In conjunction with these initiatives, MOE has committed to address thresholds in relation to air quality standards.<sup>35</sup>

### **Regional Factors and Air Quality**

The Committee noted that Ontario's common air shed with border states and the implications of trans-border pollution have broad implications for air quality.<sup>36</sup> Numerous factors contribute to air quality, such as power plants, vehicular traffic and trans-boundary airflow.<sup>37</sup> In addition, poor air quality days are associated with certain atmospheric conditions and are typically transported from the locations in the U.S. to the southwest.<sup>38</sup> Canada-wide standards have been developed, but broader atmospheric conditions must be taken into account when considering the health implications.<sup>39</sup>

#### **Studies and Co-operative Efforts on Air Quality**

The methodology for measurement has presented challenges in ensuring that air quality problems are accurately defined.<sup>40</sup> Studies have been carried out looking at initiatives associated with particular states and their policies in the development of best practices.<sup>41</sup> Other initiatives include:

- the development of a health-based National Air Quality Index;

- international agreements governing data collection through Environment Canada;
- a pilot project on the airshed of south-western Ontario;<sup>42</sup>
- provincial participation in the Canada-U.S. Air Quality Agreement on policy direction and commitments;<sup>43</sup> and
- a federal/provincial initiative with non-government organizations and academic experts to develop an improved index for the measurement and notification of air quality.<sup>44</sup>

The province monitors standards in other jurisdictions, and as science progresses, standards are reconsidered. For example, Ontario is considering current Health Canada studies, and standards and technologies in other jurisdictions such as the European Union.<sup>45</sup>

### Health and Air Quality

Air quality is central to health. Of concern to the Committee is the high percentage of hospitalizations and premature deaths attributable to air pollution. In the case of Toronto, health problems may occur when the air quality rating is good or very good.<sup>46</sup> The Ministry has taken several steps in this regard:

- within the federal-provincial context, MOE will be incorporating the best medical science into advisories, alerting the public;
- MOE works with the Medical Officer of Health and new knowledge will be incorporated to advise residents on protective measures required;
- MOE has incorporated particulate matter into the provincial index; and
- the Ministry is participating with a federal review process that is developing a new index/measure of air quality (as noted in this report).

### Committee Recommendation

#### Improved Air Quality Index

As noted, a federal/provincial initiative, with non-government organizations and academic experts, is developing an improved index for the measurement and notification of air quality.

The Committee therefore recommends that:

**4. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the development of a new air quality index, with details on the status of the research and possible timeframe for implementation.**

**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

## 4.2. Emissions Reduction Trading Program

The Ministry introduced the Emissions Reduction Trading Program which caps total emissions of sulphur dioxide and nitrogen oxides from plants in the electricity sector that burn coal and natural gas. This program permits each emitter a limited amount of emissions, and the sum of all allowances corresponds to the province's emissions target. The Program permits the sale of unused allowances to another company, and in certain instances some companies could find it financially more attractive to buy allowances than to invest in emission-reducing technology.

The Auditor noted that for 2002, the emission limit for sulphur dioxide was set 25% higher than the average emissions from the electricity sector over the previous 10 years. Consequently, until 2007 emitters could discharge more sulphur dioxide than before, and still meet the Ministry's target level.

The 2002 emission limit for nitrogen oxides was 36 kilotonnes, 32% lower than estimated emissions for 2001. Ontario Power Generation Inc. received emissions reduction credits for actions taken to reduce emissions before the Program started. By applying these prior year credits, the electricity sector was able to exceed the emission limit for nitrogen oxides in 2002 and in 2003.

The Auditor recommended that to help reduce overall emissions of nitrogen oxides and sulphur dioxide and to ensure cleaner air, reduced smog, and reduced acid rain, the Ministry should consider setting effective emission limits for sulphur dioxide (that is, limits that are below current emission levels); placing limits on the excessive use of emissions reduction credits; and imposing emission limits on other sectors that are significant emitters of sulphur dioxide and nitrogen oxides.

In response, the Ministry indicated that it would continue to review opportunities to improve the Emissions Reduction Trading Program to ensure strict environmental protection through emissions caps and incentives to reduce emissions. The Ministry assesses programs to reduce emissions, and on June 21, 2004, it proposed the extension of emissions caps regulations to cover seven industrial sectors in addition to the electricity sector.

### Committee Hearings

#### *Program Administration*

The Industry Emission Reduction Plan proposal is central to the Five Point Plan for Cleaner Air, announced on June 21, 2004. The Ministry has committed to improving the Emissions Trading Program, adjusting emissions caps and incentives, to avoid excessive use of credits. The regulatory environment provides for ongoing adjustments in permitted emissions under this Program, with current regulations continuing to reduce caps or the allowances. The Ministry assesses its

programs for reducing emissions annually, and has plans for substantial reductions in the emission caps in 2007.<sup>47</sup> As noted, in 2004, MOE proposed the extension of emissions caps regulations, covering specific industrial sectors, including major sulphur dioxide emitters.<sup>48</sup> A draft regulation has been posted setting out emissions limits.<sup>49</sup>

### Managing Sector Limits

The Ministry confirmed that when the government has established a sector limit and allocated a specific number of allowances to a facility, the facility is entitled to buy allowances or credits from other emitters. However, the credits are only issued if there are proven reductions by that emitter.<sup>50</sup> Furthermore, the Ministry determines that baseline emissions be established for a facility or process, and once new technology has been installed, monitoring ensures reductions in overall emission levels.<sup>51</sup> For example, the regulatory approach in the electricity sector is as follows:

...the emissions regulations that exist for the electricity sector impose new obligations on capped facilities. They do not relieve those facilities of any other obligations. So whether it's a coal-fired power station that's currently capped or the proposal to cap facilities in the pulp and paper sector, that regulation does not relax any other regulations or obligations that facility requires. If, under a control order or a Certificate of Approval, it must take certain actions or must reduce emissions or meet certain standards, then those standards will be unaffected by the emissions trading regulation.<sup>52</sup>

The Ministry explained that a credit may be sold to a capped emitter; however, this is short-term approach as there is an economic incentive for emitters to reduce emissions, thereby avoiding this cost.<sup>53</sup> The credit system is based on overall reductions, for example, if a 100-unit reduction is achieved; the facility receives a 90-unit credit on a diminishing scale.<sup>54</sup> Emission limits for each sector would be reconsidered over time, with the Ministry considering flow control, when the number of banked allowances exceeds a certain threshold.<sup>55</sup>

### U.S. Involvement in Credits

Of concern to the Committee is whether U.S. coal-fired plants could buy Ontario credits.<sup>56</sup> The Ministry explained the U.S. does not recognize Ontario credits issued under Regulation 397. Therefore, obligations are not relaxed in the U.S. under an emissions trading system.<sup>57</sup> However, the Ministry confirmed that consideration has been given to integrating emissions trading systems with the U.S. as provided for under the Ozone Annex to the Canada-U.S. Air Quality Agreement.<sup>58</sup> The federal government is looking at whether it makes environmental sense to permit cross-border emissions trading.<sup>59</sup>

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## Update on the Industry Emissions Reduction Plan<sup>60</sup>

The Plan provides for the application of nitrogen oxides (NO<sub>x</sub>) and sulphur dioxide (SO<sub>2</sub>) limits for additional industrial sectors, making these limits stricter in future years. Specifically, the Plan proposed nitrogen oxides and sulphur dioxide emission caps for the years 2006, 2007, 2010, and 2015 to reduce smog and acid rain related emissions from the industrial sector.

In February 2005 the Ministry posted the decision on the June 21, 2004 industry emission reduction plan indicating plans for a proposed draft regulation. Also, in February 2005, the draft regulation "Industry Emissions - Nitrogen Oxides and Sulphur Dioxide" was posted to the Environmental Registry (EBR Policy Posting # PA02E0031) for comments. The draft regulation established industry sector emission caps for the future beyond 2015. Other regulations were to be amended to require reporting of NO<sub>x</sub> as NO<sub>2</sub>. The amendment to the electricity regulation on emissions trading would permit emissions from cogeneration to be excluded from the Industry Emission Reduction Plan requirements, but the emissions would be captured by O. Reg. 397/01.

### Committee Recommendation

#### Extension of Emissions Caps Regulations

The Committee noted the Ministry's June 2004 commitment to continue to assess programs for the reduction of emissions. In 2005 the MOE posted decisions on proposed regulatory changes under the industry emission reduction plan. Also, the Ministry had proposed the extension of emissions caps regulations to include seven industrial sectors (including major sulphur dioxide emitters) as well as the electricity sector.

The Committee therefore recommends that:

**5. The Ministry of the Environment should report to the Standing Committee of Public Accounts on its commitment to expand the industry emission reduction plan with attention to proposed emissions caps regulations (2005), and the status of the plans to include industrial sectors that are major sulphur dioxide emitters under the plan.**

**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

### 4.3. Drive Clean Program

The Drive Clean Program's objective is to help reduce the emissions from on-road vehicles. Each vehicle is provided with a uniquely numbered emission certificate, which is required for licence plate renewal. Private-sector service

providers conduct various functions on behalf of the Ministry, such as monitoring Drive Clean facilities to ensure that testing equipment is operating satisfactorily. The Auditor identified several administrative concerns related to such matters as vehicle failure rates, misuse of conditional passes, methods of vehicle testing, misplaced data, and use of duplicate certificates for licence plate renewals.

The Auditor recommended that to maintain the integrity of the Drive Clean program and help promote cleaner air and a healthier environment by reducing pollution caused by motor vehicles, the Ministry should consider testing vehicles 20 years old and older, as is done for similar programs in most other jurisdictions; restrict the issuance of conditional passes to light-duty vehicles only, follow up with the responsible test facility on instances of incorrect emissions tests being conducted, and program the computer system to reject duplicate emission certificates so that they cannot be accepted for licence plate renewals.

The Ministry addressed the Auditor's concerns in its 2004 response, specifically related to repair costs, misuse of conditional passes and duplicate certificates.

## **Committee Hearings**

### *Ministry Initiatives*

The Ministry outlined a number of steps that have been taken to address the audit issues, namely:<sup>61</sup>

- in August 2004 all facilities were reminded of the standard procedures for emission testing and the consequences of non-compliance;
- implementation of a daily exception reporting and follow-up process to identify facilities whose test records show suspect uses of improper testing procedures. A guideline for inspectors helps to identify vehicles that cannot be safely tested on the dynamometer;
- introduction of quality assurance procedures to ensure consistency in tests, accompanied by facility audits; and
- introduction of revised procedures (validation procedures to detect previous uses of the same certificate number and prohibit a transaction) to address the inappropriate use of duplicate certificates and the reporting of incidents to the Ministry's Investigations and Enforcement Branch.

## **Program Review**

A Program Review was undertaken to examine options from a science-based perspective, with attention to the technology used in vehicle emissions control.<sup>62</sup> The Review is to include a consultant's evaluation of the Program addressing air quality and related issues; best practices in other jurisdictions; an evaluation of the Program's costs and benefits, and an evaluation of its overall effectiveness; the strengths and weaknesses of the program's existing design features and parameters; examination of the vehicle model years subject to testing; the use of conditional passes; and the compliance program.<sup>63</sup> The report back timeframe is the summer 2005.

### *Emissions System Repairs and Conditional Passes*

The Ministry's 2004 response noted that as of July 2004, the repair cost limit was increased to \$450. This adjustment permits vehicle owners to defer emissions system repairs above this limit and receive a conditional pass for renewing the vehicle registrations. The limit ensures that emissions system faults are identified, and according to MOE, the increase in the cost range would capture a greater number of vehicles with completed repairs. The Ministry noted that in 2003, test and repair complaints were minimal which it concluded was a positive indication of customer service.<sup>64</sup>

The Ministry's initial response to the audit report indicated that it would reinforce compliance, given past incidents in which heavy-duty vehicles were issued with conditional passes. It has committed to address this matter as part of the Quality Assurance Program.

### **Committee Recommendation**

#### Drive Clean Program Review (2005)

The Program Review was initiated to address the technology used in vehicle emissions control, with a reporting timeframe of mid 2005.<sup>65</sup> The Review is to provide a comprehensive evaluation of the Program with attention to such matters as best practices, costs and benefits, Program features and parameters, model years subject to testing, and the use of conditional passes.<sup>66</sup>

The Committee therefore recommends that:

**6. The Ministry of the Environment should report to the Standing Committee on Public Accounts on the results of its Program Review, including an outline of the findings, and remedial action initiated and/or planned, with a timeline on implementation.**

**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

#### **4.4. Vehicle Emissions Enforcement Unit**

The Ministry's Vehicle Emissions Enforcement Unit provides on-road enforcement of vehicle emissions standards. The "Smog Patrol" unit inspects vehicles and issues penalties for failing an emissions test or for having missing or tampered with emissions control equipment. The Auditor concluded that this Unit has been effective in identifying and ticketing non-compliant vehicles, but with the following concerns:

- the Unit's performance target for inspections during the 2003/04 fiscal year was exceedingly low;

- none of the vehicle operators ticketed for excessive emissions or altered emissions control equipment were required to take corrective action; and
- Smog Patrol or other Ministry staff are not required to follow up on violations to address problems identified during inspections.

The Auditor recommended that to enhance the effectiveness of the Vehicle Emissions Enforcement Unit in reducing airborne pollutants to protect human health and the environment, the Ministry should reassess the target number of inspections to be performed annually and set more productive inspection targets, and follow-up on violations to ensure that missing or inoperable emissions control equipment is restored or repaired.

The Ministry's 2004 response indicated that a number of actions had been initiated. In the 2004/05 fiscal year, a risk-based sector specific approach was introduced, and the number of inspections targeted to be completed was increased. New compliance instruments (e.g., repair orders/provincial officer orders, warning notices and tickets) were introduced with guidance materials and a follow-up protocol was developed and implemented in March 2004. Finally, the Ministry initiated enhancements to the inspection/compliance tracking information system in 2004, with a completion date of March 2005, to facilitate tracking/follow-up of enforcement activities by Unit inspectors.

## **Committee Hearings**

### *Smog Patrol and Budget Allocation*

The Patrol has not been able to follow up with violators in all instances to ensure that action has been taken to address vehicle emissions.<sup>67</sup> The Committee enquired about the Ministry's budget and whether it is able to fulfil its mandate.<sup>68</sup>

The Ministry's budget is divided into four envelopes, with one for air. The current budget allocation for the air component is \$50.8 million, or 16% of the total Ministry budget.<sup>69</sup> Over the last five years MOE's budget has increased incrementally.<sup>70</sup> The Ministry allocates resources to the various functions such as the Smog Patrol<sup>71</sup> taking into account risk-based assessments – targeting compliance in the highest risk areas with the objective of realizing the greatest environmental payback.<sup>72</sup> Specifically, higher-risk sectors are targeted, focusing inspection resources in the areas with the potential for best air quality improvement.<sup>73</sup>

### **Program Options**

Various savings options are under consideration, which include efficiencies around resources and supply chain management to ensure that savings are generated in the procurement through the Ontario Shared Services Bureau.<sup>74</sup> In addition, the Ministry is exploring a transformation agenda in which it could improve cost recovery on services, sharing responsibilities with partners. Other upstream means could be used such as educational programs.<sup>75</sup>

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## Committee Recommendation

### Inspection/Compliance Tracking Information System

Follow-up by Unit inspectors has been an issue, and in response the Ministry planned for enhancements to the inspection/compliance tracking information system with a completion date of March 2005. The Ministry reported in May 2005 that these system improvements, which include enhancements to the Vehicle Emissions Enforcement Unit, have been made. It is now possible to electronically track the issuance/compliance activity on all provincial officer orders issued, thereby enhancing compliance.<sup>76</sup>

The Committee therefore recommends that:

**7. The Ministry of the Environment should report to the Standing Committee on Public Accounts on plans for enhancing the inspection/compliance process, including details on planned improvements to enforcement activities, resource allocation plans for Unit inspectors, and an implementation schedule. The Ministry should also maintain, for management oversight and planning purposes, detailed electronic files on its tracking of compliance activity.**

**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

## 5. COMPLIANCE WITH LEGISLATION AND MINISTRY POLICY

### 5.1. Air Inspections

The Ministry conducts inspections of facilities emitting contaminants into the air to ensure compliance with legislation, Ministry policy, and the terms and conditions of Certificates of Approval. However, the Ministry did not have a formal risk-based approach in place for selecting facilities for inspection, and it did not distinguish between proactive inspections initiated by the Ministry, and reactive inspections in response to a public complaint. Several issues were identified:

- the absence of documented inspection reports on file;
- absence of a risk-based selection process;
- inspectors not testing air quality for the presence or concentration of contaminants; and
- the Ministry's mobile air-monitoring units were in use only 20% of working days during the 2003 peak season, and these units were slow at filing reports.

The Auditor recommended that to ensure that inspections of facilities emitting air contaminants are effective in enforcing environmental legislation, Ministry policy, and the terms and conditions of Certificates of Approval, and are effective in protecting human health and the environment, the Ministry should:

- adopt a formal risk-based approach to selecting facilities for inspection;
- distinguish between proactive and reactive inspections in reporting the results of its inspections; and
- increase the utilization of its mobile air-monitoring units and improve the turnaround time for reporting their results.

In 2004 the Ministry responded by implementing a formal risk-based approach to inspections and introducing procedures to distinguish between proactive and reactive inspections in its internal tracking systems. The Ministry is in agreement with the need to increase the use of its mobile air monitoring units and improving the turnaround time for reporting results.

### **Committee Hearings**

#### *Risk-Based Inspections*

The Ministry conducted a risk-based inspection pilot program in 2003-04. A formal risk-based approach was subsequently introduced for inspections in 2004-05 with planned refinements over the next few years.<sup>77</sup>

The Ministry has increased proactive inspections, and expanded the use of risk assessment for all SWAT and District inspection activities.<sup>78</sup> For example, the Operations Division statistics for proactive inspections indicate an increase in work performed for fiscal years 1998-99 and 2003-04, from 4,552 to 15,036.

### **Committee Recommendation**

#### Mobile Air Monitoring Unit

The Ministry acknowledged the need to increase the use of mobile air-monitoring units. The Committee concluded that these units are an essential feature in air inspections to ensure timely reporting and follow-up.

The Committee therefore recommends that:

**8. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the status of its commitment to increase the use of its mobile air-monitoring units and to improve the turnaround time for reporting on inspections.**

**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

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## 5.2. Environmental SWAT Team Inspections

The Environmental SWAT Team complements inspections by the Ministry's District offices by conducting province-wide inspection sweeps of industrial sectors (e.g., hazardous waste facilities). Inspections are based on a risk assessment, using a sector's history of non-compliance and its potential for major health and environmental impacts.

In the event of non-compliance, SWAT inspectors have a number of enforcement powers, which include seizing property and securing contaminated sites, and issuing an order to correct non-compliance. SWAT inspectors review facilities, revealing non-compliance with statutes and regulations related to air quality, administrative problems and other failures with potential harmful effects on human health and/or the environment.

The Auditor selected a sample of the inspections that resulted in the issuance of a compliance order. These orders required a number of corrective actions to be taken which had not been fully addressed. The SWAT Team reported non-compliance rates of more than 70% for the facilities it inspected. Over the long term, SWAT plans to re-inspect sectors to compare compliance rates with the initial sector inspections. The Auditor noted that the Ministry's SWAT inspection activities have been successful in identifying numerous non-compliant facilities; however, follow-up procedures require strengthening to ensure that identified problems are corrected.

The Auditor recommended that to improve the efforts of the Environmental SWAT Team to reduce airborne threats to the environment and human health, the Ministry should require facilities that receive a compliance order to report back on all actions taken to correct non-compliance, review input procedures to ensure the accuracy of its inspection database, and enhance program results reporting by periodically assessing the Team's direct impact on emissions reduction.

The standard compliance operating procedure is to require confirmation by a facility owner that the work ordered has been completed, and to monitor report-backs to assess progress to achieve full compliance. The following commitments were made by MOE in 2004:

- to review standard operating procedures and current inspection files to ensure that procedures are followed and that compliance follow-up is being performed;
- to assess the data input in the information system to ensure data quality, accuracy, and integrity, with deficiencies being corrected;
- to ensure close monitoring of data quality through existing business practices with system improvements to provide improved monitoring of compliance progress and data accuracy; and
- develop measures to promote outcome-based performance measures for use in inspection programs.

## Committee Hearings

### *Program Effectiveness*

The Team's effectiveness is measured by the number of sectors selected for inspections and the number of inspections performed.<sup>79</sup> The distinction was made by the Ministry that effectiveness has not been measured by assessing the inspections' impact on the environment.<sup>80</sup>

### Review of Operating Procedures

In 2004 SWAT made a commitment to undertake a review of operating procedures and current inspection files to ensure that procedures are followed and that compliance follow-up is occurring. During the hearings, the Ministry confirmed that the review was ongoing.

SWAT is to assess data in the system to ensure quality, accuracy and integrity, with any deficiencies being identified and addressed. Such improvements would enable SWAT to better monitor compliance.<sup>81</sup> The Ministry acknowledged that outcome-based performance measures can be used to assess and enhance the effectiveness of inspection programs, and it has undertaken to develop such measures.<sup>82</sup> System enhancements are scheduled for completion by March 2005.

## Committee Recommendation

### Operational Review and Management Reporting

The Ministry has completed its operational review of procedures, with a focus on system enhancements. The objective was to monitor data quality/input and compliance progress, in conjunction with the introduction of outcome-based performance measures for program assessment.

The Ministry provided supplementary information indicating that the SWAT Team had incorporated a Provincial Officer Order compliance tracking system in its business practices.<sup>83</sup> In addition, SWAT now conducts data quality reviews on an on-going basis to ensure the accuracy of the data in the system.<sup>84</sup> The planned enhancements to the system have been completed, and the Ministry is now implementing an electronic *Business Intelligence Tool* to facilitate the generation of management reports. The expected completion date is July 2005.<sup>85</sup>

The Committee therefore recommends that:

**9. The Ministry of the Environment should report to the Standing Committee on Public Accounts with details on the results of its operational review of the Environmental SWAT Team's inspection process, addressing major initiatives and implementation timelines. In addition, the report should provide an update on the implementation of the proposed electronic generation of management reports.**

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**The Committee requests that the Ministry provide the Committee Clerk with a written response to this recommendation within 120 days of the date of tabling this report in the Legislature.**

## **6. LIST OF COMMITTEE RECOMMENDATIONS**

The Committee requests that the Ministry provide the Committee Clerk with a written response to the following recommendations within 120 days of the date of tabling this report in the Legislature.

- 1. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the status of its air standards implementation plan, with attention to the implications for air quality and the affected parties over the immediate and long-term.**
- 2. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the status of its plans to update provincial air-dispersion modeling and the expected impact that the phased approach will have on local air quality during the phase in period.**
- 3. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the implementation of its risk-based performance management approach for issuing Certificates of Approval. The report should address such features as the review function for high-risk sectors, improvements to information systems, and the Ministry review process for Certificates of Approval.**
- 4. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the development of a new air quality index, with details on the status of the research and possible timeframe for implementation.**
- 5. The Ministry of the Environment should report to the Standing Committee of Public Accounts on its commitment to expand the industry emission reduction plan with attention to proposed emissions caps regulations (2005), and the status of the plans to include industrial sectors that are major sulphur dioxide emitters under the plan.**
- 6. The Ministry of the Environment should report to the Standing Committee on Public Accounts on the results of its Program Review, including an outline of the findings, and remedial action initiated and/or planned, with a timeline on implementation.**
- 7. The Ministry of the Environment should report to the Standing Committee on Public Accounts on plans for enhancing the**

**inspection/compliance process, including details on planned improvements to enforcement activities, resource allocation plans for Unit inspectors, and an implementation schedule. The Ministry should also maintain, for management oversight and planning purposes, detailed electronic files on its tracking of compliance activity.**

**8. The Ministry of the Environment should report to the Standing Committee of Public Accounts on the status of its commitment to increase the use of its mobile air-monitoring units and to improve the turnaround time for reporting on inspections.**

**9. The Ministry of the Environment should report to the Standing Committee on Public Accounts with details on the results of its operational review of the Environmental SWAT Team's inspection process, addressing major initiatives and implementation timelines. In addition, the report should provide an update on the implementation of the proposed electronic generation of management reports.**

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## APPENDIX

The Ministry provided the following supplementary information on the Air Quality Program in a document dated May 2, 2005.<sup>86</sup>

### **Industry Emissions Reduction Plan**

The Industry Emission Reduction Plan proposal is a key component of Ontario's Five Point Plan for Cleaner Air that was announced on June 21, 2004. Two of the points in the Plan include:

- Applying tough nitrogen oxides (NOx) and sulphur dioxide (SO<sub>2</sub>) limits to more industrial sectors; and
- Making the nitrogen oxides and sulphur dioxide limits even stricter in future years.

The Industry Emission Reduction Plan proposed nitrogen oxides and sulphur dioxide emission caps for the years 2006, 2007, 2010, and 2015 and onward to reduce smog and acid rain related emissions from the industrial sector. It was posted on the Environmental Registry for a 60-day comment period from June 21, 2004 to August 20, 2004. A total of 31 comments were received from various stakeholders by the EBR closing date of August 20, 2004.

On February 10, 2005, the Ministry posted the decision on the June 21, 2004 Industry Emission Reduction Plan proposal. After considering the comments, the Ministry of the Environment decided to propose a draft regulation.

On February 10, 2005, the draft regulation "Industry Emissions - Nitrogen Oxides and Sulphur Dioxide" was posted to the Environmental Registry (EBR Policy Posting # PA02E0031) for a 30-day comment period (deadline of March 12, 2005). The draft regulation builds upon the Industry Emission Reduction Plan proposal.

The EBR posting included:

The draft regulation "Industry Emissions - Nitrogen Oxides and Sulphur Dioxide"

Best Available Control Technology - Economically Achievable (BACTEA) Guideline

Continuous Emissions Monitoring (CEM) Guideline

O.Reg. 153/99 Amendments (Ontario Power Generation)

O.Reg. 397/01 Amendments (Emission Trading)

The draft regulation establishes industry sector emission caps for the years 2006, 2007, 2010, and 2015 and onward. The draft regulation includes:

- The maximum level of allowances that would be allocated to seven industrial subsectors (industry sector cap);
- The cap is divided into seven budgets, one for each sub-sector;
- Details on allowances that are allocated to individual facilities within each sub-sector;
- The use of emissions trading, facilities can bank or sell unused allowances;
- A new source set-aside for new and expanded facilities;
- Reductions in allowances for facilities that reduce production or close;
- Use of Continuous Emission Monitors (CEMs) for large sources; and
- Use of nitrogen oxides (NO<sub>x</sub>) as nitrogen dioxide (NO<sub>2</sub>) as the reporting metric.

Two other regulations (O. Reg. 153/99 and 397/01) would also be amended to require reporting of NO<sub>x</sub> as NO<sub>2</sub> (NO<sub>x</sub> being the sum of NO<sub>2</sub> and NO).

The amendment to the electricity regulation (O.Reg. 397/01 - Emissions Trading) would also remove a barrier to cogeneration by industry. Emissions from cogeneration will be excluded from the Industry Emission Reduction Plan requirements but these emissions will be captured by O. Reg. 397/01.

### **Air Standards Implementation Plan**

The proposals related to the implementation of Ontario's air standards are a key component of Ontario's Five Point Plan for Cleaner Air that was announced on June 21, 2004. Three of the points in the Plan include:

- Setting tough new air standards, in some cases for the first time, for 29 harmful pollutants, including carcinogens and toxins that could pose a threat to human health;
- Achieving a better picture of industrial emissions through updated technology; and
- A faster, risk-based approach to implementing new air standards.

Ontario's Air Standards Implementation Plan proposes to update the existing regulatory framework (Ontario Regulation 346 - General Air Pollution) in order to:

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- Phase-in new and revised effects based air quality standards;
  - Replace outdated air dispersion models with better United States Environmental Protection Act (USEPA) models;
  - Introduce a risk-based decision making process that allows for site specific solutions to deal with implementation issues; and
  - Introduce new requirements that will enhance enforceability.

Up-to-date, scientifically-based, enforceable air standards are vital tools to protect air quality in local communities and ensure good air quality for all Ontarians.

The components of Ontario's plan were posted on the Environmental Bill of Rights (EBR) Registry for a 120 day comment period (June 21 - October 19,2004). These included:

- Proposed regulatory amendments to the "General - Air Pollution Regulation 346" as outlined in the position paper "Updating Ontario's Regulatory Framework to Protect Local Air Quality."
- Proposed new standards for 28 pollutants and a decision on one pollutant (n-hexane).
- A proposed "Air Dispersion Modeling Guideline for Ontario" to replace current models with United States Environmental Protection Act (USEPA) models, which provide a more accurate assessment of health and environmental impacts.
- A proposed "Guideline for the Implementation of Air Standards in Ontario" that would improve the implementation of air standards while considering the risk to the local community, technical issues/costs to industry and public transparency.

A total of 75 stakeholders submitted 204 formal comments on these proposals. To facilitate stakeholder consultation, numerous information sessions were delivered by the Ministry of the Environment (MOE) which were attended by over 400 stakeholders, including representatives from industry, environmental non-government organizations (ENGOS), academia, consultants and public health groups. A working group, with representation from the Ministry of Health and Long Term Care (MOHL TC) and Public Health Units, was also formed to discuss key health-related and implementation issues.

As result of the valuable feedback from stakeholders, MOE has re-evaluated its proposals and has responded by proposing to:

- Extend the phase-in periods for new models and new standards;

- Introduce a staged approach to implementation for new models and compliance reports by targeting key higher risk sectors; and
- Alleviate the burden on small- to- medium-sized businesses by delaying their use of the new air dispersion models until 2020.

In March 2005, the MOE conducted focused consultation sessions with targeted sectors, organizations that had commented on June 2004 proposal and public health groups to present the ministry's responses to the stakeholder comments.

To support these proposed regulatory amendments, MOE is in the process of posting on the Environmental Bill of Rights Registry, for a 30 day consultation:

1. A Guideline for Emission Summary and Dispersion Modelling (ESDM) Reports; and
2. Proposed Revisions to Odour-based Ambient Air Quality Criteria and Development of an Odour Policy Framework.

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## NOTES

<sup>1</sup> Ontario, Legislative Assembly of Ontario, Standing Committee on Public Accounts, Official Report of Debates (*Hansard*), First Session, 38<sup>th</sup> Parliament (17 February 2005): P-287 and P-288.

<sup>2</sup> *Ibid.*, P-273 and P-274.

<sup>3</sup> *Ibid.*, P-274.

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*, P-272.

<sup>6</sup> *Ibid.*, P-272 and P-273.

<sup>7</sup> *Ibid.*, P-272.

<sup>8</sup> *Ibid.*

<sup>9</sup> *Ibid.*, P-286.

<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*

<sup>12</sup> *Ibid.*, P-272.

<sup>13</sup> *Ibid.*, P-273.

<sup>14</sup> *Ibid.*, P-268.

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*, P-268, P-270, P-273 and P-274.

<sup>17</sup> *Ibid.*, P-287.

<sup>18</sup> *Ibid.*, P-287 and P-288.

<sup>19</sup> *Ibid.*, P-268.

<sup>20</sup> This section is based directly on the letter to the Clerk of the Standing Committee on Public Account from the Deputy Minister, Ministry of the Environment in response to requests made by the Committee during hearings conducted on February 17, 2005 at Queens Park, Toronto.

<sup>21</sup> Ontario, Legislative Assembly of Ontario, Standing Committee on Public Accounts, Official Report of Debates (*Hansard*), First Session, 38<sup>th</sup> Parliament (17 February 2005): P-273.

<sup>22</sup> *Ibid.*, P-277 and P-278.

<sup>23</sup> *Ibid.*, P-278.

<sup>24</sup> *Ibid.*, P-288.

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.*, P-271.

<sup>28</sup> *Ibid.*, P-268.

<sup>29</sup> *Ibid.*, P-275.

<sup>30</sup> *Ibid.*, P-271.

<sup>31</sup> *Ibid.*, P-276.

<sup>32</sup> *Ibid.*, P-277.

<sup>33</sup> *Ibid.*, P-275.

<sup>34</sup> *Ibid.*, P-283.

<sup>35</sup> *Ibid.*, P-268.

<sup>36</sup> *Ibid.*, P-289 and P-270.

<sup>37</sup> *Ibid.*, P-280.

<sup>38</sup> *Ibid.*, P-279.

<sup>39</sup> *Ibid.*, P-282.

<sup>40</sup> *Ibid.*, P-270 and P-271.

<sup>41</sup> *Ibid.*, P-290.

<sup>42</sup> *Ibid.*, P-271.

<sup>43</sup> *Ibid.*, P-290.

<sup>44</sup> *Ibid.*, P-280 and P-281.

<sup>45</sup> *Ibid.*, P-282.

<sup>46</sup> *Ibid.*, P-281.

<sup>47</sup> *Ibid.*, P-268.

<sup>48</sup> *Ibid.*, P-268 and P-269.

<sup>49</sup> *Ibid.*, P-269.

<sup>50</sup> *Ibid.*, P-279.

<sup>51</sup> Ibid.

<sup>52</sup> Ibid.

<sup>53</sup> Ibid.

<sup>54</sup> Ibid.

<sup>55</sup> Ibid., P-283.

<sup>56</sup> Ibid., P-278.

<sup>57</sup> Ibid., P-282 and P-283.

<sup>58</sup> Ibid., P-282.

<sup>59</sup> Ibid.

<sup>60</sup> This section is based directly on the letter to the Clerk of the Standing Committee on Public Account from the Deputy Minister, Ministry of the Environment in response to requests made by the Committee during hearings conducted on February 17, 2005 at Queens Park, Toronto.

<sup>61</sup> Ontario, Legislative Assembly of Ontario, Standing Committee on Public Accounts, Official Report of Debates (*Hansard*), First Session, 38<sup>th</sup> Parliament (17 February 2005): P-269.

<sup>62</sup> Ibid., P-269.

<sup>63</sup> Ibid.

<sup>64</sup> Ibid.

<sup>65</sup> Ibid., P-268.

<sup>66</sup> Ibid., P-269.

<sup>67</sup> Ibid., P-283, P-284.

<sup>68</sup> Ibid., P-287.

<sup>69</sup> Letter to the Clerk of the Standing Committee on Public Account from the Deputy Minister, Ministry of the Environment in response to requests made by the Committee during hearings conducted on February 17, 2005 at Queens Park, Toronto and *Hansard*, P-284.

<sup>70</sup> Ontario, Legislative Assembly of Ontario, Standing Committee on Public Accounts, Official Report of Debates (*Hansard*), First Session, 38<sup>th</sup> Parliament (17 February 2005): P-284.

<sup>71</sup> Ibid., P-284.

<sup>72</sup> Ibid.

<sup>73</sup> Ibid., P-287.

<sup>74</sup> Ibid.

<sup>75</sup> Ibid., P-286 and P-287.

<sup>76</sup> Ibid.

<sup>77</sup> Ibid., P-270.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid., P-269.

<sup>80</sup> Ibid.

<sup>81</sup> Ibid., P-270.

<sup>82</sup> Ibid.

<sup>83</sup> Memorandum to the Research Officer, Standing Committee on Public Accounts, from the Assistant Deputy Minister Corporate Management Division, Ministry of the Environment, dated May 24, 2005.

<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

<sup>86</sup> Letter to the Clerk of the Standing Committee on Public Accounts from the Deputy Minister, Ministry of the Environment in response to requests made by the Committee during hearings conducted on February 17, 2005 at Queens Park, Toronto.