

Air Quality Program

Follow-up to VFM Section 3.04, *2004 Annual Report*

Background

The Ministry of the Environment's mandate is to protect, restore, and enhance the environment to ensure public health, environmental protection, and economic vitality. There are a number of laws and regulations in place to protect Ontario's air quality. Of particular importance is the *Environmental Protection Act*. The Act establishes a general prohibition against the discharge of contaminants into the environment in excess of amounts permitted by regulations and provides the authority for environmental inspections and investigations.

The Ontario Medical Association estimated that air pollution in the year 2000 could lead to 1,900 premature deaths and 9,800 hospitalizations, and that the annual cost of air pollution to Ontario in terms of health care and lost productivity was \$10 billion. In the 2005/06 fiscal year, the Ministry spent approximately \$54 million (approximately \$28 million in 2002/03) for programs and activities that relate directly to air quality.

In our *2004 Annual Report*, we observed that the Ministry had implemented several key regulatory and operational initiatives directed at reducing air contaminants since our last audit of the Ministry's Environmental Sciences and Standards Division in 1996. However, we also concluded that further action needed to be taken because, according to

ministry projections, the province would not be able to meet its national and international commitments to achieve cleaner air in Ontario over the next 10 years. Some of our more significant observations included the following:

- Since our 1996 audit of the Ministry's Environmental Sciences and Standards Division, standards for air pollutants had been developed, updated, or reaffirmed for only 18 of 70 air pollutants that had been categorized as high priority for air standards development.
- There were no periodic renewal requirements for Certificates of Approval issued to companies discharging contaminants into the air, and accordingly, many Certificates reflected outdated pollution limits in effect at the time the Certificate was originally issued.
- The Medical Officer of Health for Toronto reported that the Ministry's Air Quality Index misrepresented the health risks associated with air pollution in that it did not consider the combined effects of all measured pollutants, and estimated that 92% of the premature deaths and hospitalizations that were attributable to air pollution occurred when air quality was classified as good or very good.
- For the Drive Clean program, we identified 3,200 uniquely numbered emissions certificates that were presented for licence plate renewal more than five times each. One

uniquely numbered certificate had been presented more than 400 times for different vehicles. Such duplicate certificates were accepted for licence plate renewals. These obvious improprieties undermined this program's integrity.

- The Ministry's SWAT inspection activities had been successfully identifying numerous non-compliant facilities. However, the Ministry's follow-up procedures for ensuring that identified problems were corrected required improvement.

Current Status of Recommendations

According to information received from the Ministry of the Environment, some progress has been made on all of the recommendations in our *2004 Annual Report*, with substantial progress having been made on several. The current status of actions taken on each of our recommendations is as follows.

PROGRAM POLICY AND PLANNING

Strategic Planning Process

Recommendation

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.

Current Status

The Ministry advised us that a key component of the overall strategy was to reduce air pollution from sources outside the province, which account for 50% of the smog in Ontario. The Ministry indicated that the key initiative aimed at addressing the issue

of air pollution from outside the province was the release in June 2005 of *Transboundary Air Pollution in Ontario*, a report outlining the geographic origins of air pollutants and the actions proposed for reducing it through such initiatives as the Emissions Reduction Trading Program.

We were advised that the Premier also announced the next steps for dealing with transboundary pollution in 2005 at the first annual Shared Air Summit, attended by representatives of neighbouring provinces and states and by agencies of the Canadian federal government. The Ministry advised us that the second annual Shared Air Summit, in June 2006, provided the opportunity to outline the current status of commitments made by Ontario at the previous summit. According to the Ministry, accomplishments since the first summit included:

- formation of a round table of experts to advise the government of Ontario on ways to clean up the airshed;
- involvement in regulations governing emissions policy in the United States that affect Ontario; and
- creation of working relations with neighbouring jurisdictions to act on clean-air initiatives (for example, in June 2006, the Ontario and Quebec Ministers of the Environment signed the *Ontario-Quebec Agreement Concerning Transboundary Environmental Impacts*).

The Ministry stated that the issue of air pollution from industrial emitters within Ontario was being addressed by the implementation in 2005 of a five-point plan. The first two points in the plan related to the reduction of nitrogen oxide and sulphur dioxide emissions. Ontario Regulation (O. Reg.) 194/05, which came into effect in May 2005, reduced the allowable industrial emissions for these two significant smog-causing pollutants, with further reductions scheduled for subsequent years.

The remaining three points in the plan were addressed by the implementation of O. Reg. 419/05

on local air quality in November 2005. According to the Ministry, the regulation set new standards for many harmful pollutants, will enable greater knowledge of industrial emissions with the use of more accurate air dispersion models, and introduced a faster, risk-based approach for implementing new air standards.

In addition to the five-point plan, the Ministry announced a coal-replacement strategy in June 2005, that set timelines for the closure of Ontario's four remaining coal-fired stations. The coal-fired Lakeview Generating Station was closed in April 2005, but the following year, the projected supply and demand of electricity in Ontario led to a postponement of the closing dates for the four remaining coal-fired plants. No new dates have been set. At the same time, Ontario has been working on the development of cleaner sources of energy, including nuclear power and renewable energy, and on conservation measures.

Regarding vehicle emissions, a further tightening of standards in the Drive Clean program in 2005 reduced allowable emissions by 11.5% for light-duty vehicles and 5% for diesel heavy-duty vehicles. In addition, a regulation was promulgated requiring an annual average 5% ethanol content in gasoline sold in Ontario beginning in 2007.

Air Quality Standards

Recommendation

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 implementation of 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.*

Current Status

The Ministry informed us that a new regulation, O. Reg. 419/05, came into effect November 30, 2005, to manage local air emissions and to update the regulatory framework that had been in place in Ontario for more than 30 years. It includes a risk-based process to allow alternative standards for any pollution-emitting facilities having difficulty implementing the new standards or dispersion models. To obtain ministry approval for variance from the standards, facilities must submit information for ministry review that includes the magnitude and frequency of their emissions exceeding air quality standards, an assessment and ranking of technical options available to reduce pollutants, details on economic feasibility, results of consultations with the public, and a timeframe for implementation. This information must demonstrate best efforts by the facility to comply with the standard and must include a continuous improvement toward achieving the standard. Upon assessing this information, along with any other data regarding the facility, the Ministry may allow the approved alternative standards for up to five years, or 10 under extenuating circumstances. The Ministry informed us that it will carry out periodic reviews to ensure continuous improvement.

The Ministry now has updated air standards for 41 of the 70 high-priority substances identified in its 1999 Standards Plan. We were informed that consultation documents for an additional 14 high-priority substances had been posted on the Environmental Bill of Rights Environmental Registry in June 2006. In addition, standards were under review and development for an additional 13 high-priority substances. Standards for the final two of the remaining 70 high-priority substances were being developed by the federal government in consultation with the provinces and were to be considered for implementation in Ontario.

Pursuant to O. Reg. 419/05, regarding Air Pollution and Local Air Quality, pollution emitters will be

required to use up-to-date and improved air dispersion models, which provide a more accurate assessment of health and environmental impacts. These models will be phased in by sector, starting in 2010 and completing in 2020. All new facilities for which construction began after November 30, 2005, must use the new air dispersion models. The Ministry developed three technical guidance documents to support the implementation of the regulation: the *Air Dispersion Modeling Guideline for Ontario*, the *Procedure for Preparing an Emission Summary and Dispersion Modeling Report*, and the *Guideline for the Implementation of Air Standards in Ontario*.

Certificates of Approval

Recommendation

To help ensure that emissions of airborne contaminants are limited to levels that are safe for human health and the environment, 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.*

Current Status

The Ministry said that it now ranks emitting facilities annually based on risk posed to health and the environment, and inspects those ranked the highest in that same year. In preparing for inspections, ministry staff review a facility's Certificate of Approval. Should they identify a need for updating, staff are required to ensure that the company submits an application to amend the Certificate. This process is

to be integrated into the Ministry's information systems.

In addition, district inspections resulting from public complaints, spills, or other such events will include a review of Certificates of Approval held by the responsible party. Again, inspection staff are required to follow up on needed amendments, and they will address non-compliance by issuing a compliance order to the facility, fining the facility, or referring it to the Investigations and Enforcement Branch for follow-up, including possible legal prosecution. It will be each Certificate holder's responsibility to comply with new standards arising from legislative or regulatory change, and the holder will be required to apply for an amendment to its Certificate of Approval if the Certificate refers to a standard that has been changed.

The Ministry informed us that it had developed and implemented a protocol and checklists for updating Certificates and determining whether changes should be incorporated into a facility's Certificate to meet the requirements of legislation, regulations, standards, policies, guidelines, and operating procedures.

The Ministry informed us that it had taken three steps to process applications in a more timely manner. First, facilities can apply for a Basic Comprehensive Certificate of Approval, which allows them to make changes to their processes up to an approved limit while still meeting legislated emission standards. Each comprehensive certificate issued reduces overall workload, since any changes up to the limits in the certificate do not require certificate modification. The Ministry advised us that, as a result, it has reduced the workload of its Air Approval Unit by about 50%, allowing staff to process other applications for Certificates of Approval more quickly. Second, the Ministry had developed model terms and conditions for the application process to help ensure that necessary information is included in the application, and that the terms and conditions can be defended if the applicant appeals.

Third, the Ministry stated that it had targeted specific sectors to improve application-processing times, and has already improved times for the electricity sector. Proponents of electricity projects can submit technical reports for ministry assessment while undergoing an environmental screening process. This review takes place before the submission of an application for a Certificate of Approval.

AIR QUALITY MONITORING

Air Quality Index

Recommendation

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 (AQI) 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.*

Current Status

The Ministry completed a review and revision of the descriptive ratings of the province's current Air Quality Index (AQI). Air quality is now described as poor if the level of nitrogen dioxide or sulphur dioxide exceeds air quality standards.

The Ministry had also been working on a project led by the federal government and including other stakeholders to develop a new National Air Quality Index based on health risk. A new index was proposed in January 2006 and subsequently reviewed by an external expert panel. Health Canada was

expected to respond to the review in the current year. Pilot testing of the AQI health-risk-based index in Ontario was to proceed once the science issues raised by the external expert panel in May 2006 were resolved.

The Ministry said that it is working with the federal government to explore ways to shift from an air-standards-based index to one based on the cumulative health effects of pollutants.

Emissions Reduction Trading Program

Recommendation

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.*

Current Status

The Ministry reported that sulphur dioxide emission reductions for the fossil fuel electricity-producing sector were put into regulation by limiting emissions from that sector to 157.5 kilotonnes in 2002. This limit was to be further reduced in 2007 to 131 kilotonnes, for a total 25% reduction from the 175-kilotonne limit set under the Countdown Acid Rain program in 1994.

Under O. Reg. 194/05, which took effect in 2006, sulphur dioxide emission limits were placed on six more industrial sectors, with additional reductions to the emission limits set for 2007, 2010, and 2015. The total annual allowance of sulphur dioxide emissions under ministry regulation for the electricity sector and the six industrial sectors are

617.1 kilotonnes in 2006, 499.2 kilotonnes in 2007, 477.2 kilotonnes in 2010, and 322.5 kilotonnes in 2015.

The province grants each regulated company/facility a quota of emission allowances, and those that don't use their entire allotment of allowances can sell them to others. Emissions reduction credits are generated by companies that are not regulated under regulations 397 or 194. We questioned the use of emissions reduction credits in our *2004 Annual Report*. The Ministry has confirmed that their use is limited to 33% of allowances used to achieve compliance for nitrogen oxide emissions, and 10% of allowances used to achieve compliance for sulphur dioxide emissions. In addition, the Ministry requires that users of emissions reduction credits retire an additional 10% in credits for the benefit of the environment when they are used to achieve compliance. The Ministry also revised the Ontario Emissions Trading Code in 2005 to help facilitate sulphur-dioxide and nitrogen-oxide emission reductions through the addition of facilities that could participate in the creation of emissions reduction credits. The Ministry said these additions allowed a larger number of emitters to make voluntary reductions that may qualify for the creation of emissions reduction credits. In turn, this was expected to lead to accelerated improvements in the air quality of Ontario and more flexibility for the regulated sectors to meet their emissions limits.

O. Reg. 194/05 also imposes emissions limits on several industrial facilities. The regulation allows 30 emitting facilities to participate in emissions trading, and begins limiting nitrogen oxides and sulphur dioxide in 2006, with progressively lowered emission limits in 2007, 2010, and 2015. By 2015, O. Reg. 194/05 is expected to reduce nitrogen oxides by 21% from 1990 levels and sulphur dioxide by 46% from 1994 levels.

Air Emissions Reporting Process

Recommendation

To provide the public with accurate information on the emission of airborne contaminants sufficient to allow informed decisions about environmental and health impacts, the Ministry should:

- *develop a process for ensuring that all facilities required to submit annual emission reports do so;*
- *follow up on annual emission reports that are incomplete and/or contain anomalies on a timely basis to provide the public with assurance that the information is reasonably reliable; and*
- *consider generating consolidated reports that are sufficiently useful for both public and ministry decision-making purposes.*

Current Status

In early 2006, the Ministry amended the regulation regarding air emission monitoring and reporting to harmonize it with Environment Canada's National Pollutant Release Inventory (NPRI). As part of this harmonization, the Ministry and Environment Canada (EC) have agreed to co-operate on a range of activities to ensure that all facilities submit annual emission reports as required. These joint activities include outreach initiatives to raise the awareness of reporting requirements, reviews of data submitted by emitting facilities for quality assurance and control, use of NPRI data to identify facilities posing human health or environmental risks that should be inspected, and the gathering and dissemination of information by ministry and EC staff. The Ministry said that these co-operative efforts will continue for future reporting years.

The Ministry reported that it had completed quality assurance and quality control reviews for reporting years up to and including 2003. Several criteria were used in the process, such as major changes from previously submitted reports, abnormal quantities of pollution emissions, and comparison of facility data to that of similar facilities

reporting to the NPRI. Facilities were contacted when reports were incomplete or when anomalies were identified, and the Ministry said that these issues had subsequently been resolved. The Ministry was reviewing data received in 2005 for the 2004 reporting year.

The Ministry said that emissions data gathered from Ontario facilities were available from the websites of the Ministry and EC for report generation. A combination of emissions data from the Ministry and from EC has been used to help the Ministry develop policies and regulations. For example, NPRI emissions data, along with other facility data, helped determine the relative priorities of sectors to be included in O. Reg. 419/05, regarding air pollution and local air quality. O. Reg. 194/05, regarding industry emissions of nitrogen oxides and sulphur dioxide, was developed using an existing regulation (O. Reg. 127/01) and NPRI data. The Ministry was also able to analyze progress made on smog reduction from data reported under O. Reg. 127/01, along with other information from mobile and area sources. This resulted in the Clean Air Action Plan report in June 2004, which outlined progress and additional emissions reductions to be made.

Ontario facilities' emissions data for reporting year 2005 was to be reported through the EC information system, called the "One Window to National Environmental Reporting System." These emissions data will be made publicly available through EC's National Pollutant Release Inventory. The Ministry also publishes emissions information in an annual report titled "Air Quality in Ontario," available on the Ministry's website. The report for 2004 was posted on the website in May 2006.

Drive Clean Program

Recommendation

To maintain the integrity of the Drive Clean program and help promote cleaner air and a healthier environ-

ment 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.*

Current Status

The Ministry completed a review of the Drive Clean program in 2005, and made recommendations that focused on vehicles most likely to pollute. As a result, the Ministry announced that effective January 1, 2006, light-duty vehicles newer than 1987 will require a Drive Clean test regardless of age, but light-duty vehicles from the 1987 and earlier model years will remain permanently exempt from Drive Clean testing.

The Ministry said that Drive Clean's standard operating procedures prohibit the issuance of conditional passes for heavy-duty vehicles. In addition, computers at Heavy Duty Vehicle Facilities do not have the capability to issue conditional passes. A new process was added to the standard operating procedure in January 2006 requiring technicians to test all non-diesel Heavy Duty Vehicles as first-time tests, which will help prevent the inappropriate issuance of conditional passes.

Issuance of a conditional pass to a heavy-duty vehicle can now bring a six-month suspension of a Drive Clean facility's accreditation for a first occurrence, and termination for a second. The Ministry said that it had identified no instance of a deliberate issuance of a conditional pass for heavy-duty vehicles since January 2005. The Ministry said that this issue is addressed on an ongoing basis through training of inspectors and repair technicians, and

through regular data reviews to identify Drive Clean facilities issuing inappropriate conditional passes.

The Ministry reported that it had implemented an Exception Reporting System in August 2004 that identifies Drive Clean facilities suspected of having performed incorrect testing. The Drive Clean Office sends out exception reports to Drive Clean facilities suspected of incorrectly using the two-speed idle test instead of the simulated-motion test that more closely represents normal engine operation and better reflects on-road emissions. The Ministry said that it follows up on all facilities receiving exception reports. In addition, the Ministry had sent out 550 letters to Drive Clean facilities where the number of idle-testing procedures met or exceeded the province-wide average. Eight Drive Clean facilities received suspensions in 2005 for idle-testing infractions.

In 2006, an updated list of vehicles that qualify for the two-speed idle tests was included in the revised Standard Operational Procedures. However, inspectors may still use their judgment regarding the test risk, and use the two-speed idle method to take into account such vehicle features as traction control, four-wheel drive, and minimal ground clearance, or for those vehicles that cannot be safely secured on testing equipment.

In 2005, the Ministry and the OPP investigated Drive Clean fraud, bringing criminal charges against eight individuals for forgery, uttering forged documents, and fraud. As a further precaution, a regulatory change to O. Reg. 361 under the *Environmental Protection Act* was implemented in January 2006 to include stronger fraud prevention measures that make it an offence to create, distribute, or use false Drive Clean certificates. The Ministry, with the co-operation of the Ministry of Transportation, was implementing a security upgrade to Drive Clean software in 2006 that will eliminate the potential for accepting invalid Drive Clean certificates.

Vehicle Emissions Enforcement Unit

Recommendation

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.*

Current Status

According to the Ministry of the Environment, more reliance was placed on private vehicles emissions testing, which led to a reduction in the inspection resources of the Vehicle Emissions Enforcement Unit in December 2004. For 2005/06, the focus of inspections was on high-risk sectors such as taxis, heavy-duty trucks, and other commercial vehicles, instead of privately owned vehicles. It has been found that the risk-based approach takes more time to plan targeted inspections and to perform the associated follow-ups to ensure that the required corrective actions are taken. The number of inspections in 2003/04 and 2004/05, prior to the reduction in resources, was targeted at 6,000 and 7,000, respectively. With reduced inspection resources in 2005/06, the Ministry met its reduced target of 3,500 inspections. The Ministry reviews the inspection target annually using the risk-based approach, and monitors progress made in meeting the target throughout the year.

The Ministry had taken steps to ensure that missing or inoperable emissions control equipment is restored or repaired. Staff are now able to issue Provincial Officer Orders requiring repairs to bring a vehicle into compliance within a specified time. The owner of the ticketed vehicle must confirm in writing to the issuing officer that the work or repairs ordered have been completed.

The compliance-tracking information system was enhanced in March 2005 to automatically track and bring forward matters requiring follow-up by officers, such as those found in compliance orders issued to a vehicle owner. The system also allows the officer to produce inspection reports and issue Provincial Officer Orders at the time of inspection.

COMPLIANCE WITH LEGISLATION AND MINISTRY POLICY

Air Inspections

Recommendation

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.*

Current Status

The Ministry implemented a risk-based approach for selecting facilities for planned inspections in 2004/05. Priorities are determined at the district level, where facilities are ranked into three main risk categories that focus on known or potential impacts of a facility on human health or the natural environment, or where the risk was low or unknown. Selection of specific facilities includes informed judgment of district staff, along with an assessment of the type and size of the facility, type and quantity of material or processes on site, past compliance history, and other factors. In addition to planned inspections, the districts respond to en-

vironmental incidents such as spills, unlawful discharges, or odour complaints, and these are ranked by risk to health and the environment.

Based on the findings of planned and responsive inspections, the environmental officers are to take the appropriate abatement action, such as issuing a ticket or Provincial Officer Order, or even referring the case to the Investigations and Enforcement Branch for possible legal action. Inspections results are tracked in the Ministry's Integrated Divisional System and used for planning in subsequent years. Facilities found to pose a risk to human health or the environment, and non-compliant in 2004/05, were either re-inspected in 2005/06 or had their ongoing abatement activities monitored by district staff.

The Ministry said that it now distinguishes between proactive and reactive inspections in its internal tracking systems and uses that information when planning risk-based inspections for the forthcoming fiscal year.

The Ministry informed us that a thorough review had been done to assess the appropriate and effective use of the mobile air-monitoring units in terms of responses to environmental events, regular compliance-monitoring activities, and report writing. The Ministry said that given the current level of resources, the mobile units had reached an optimum level of usage. In 2005, the average turnaround time for issuing a report was 42 days, compared with 160 days in 2003, and 173 days in 2004.

Selected Targets for Air Compliance (STAC) Program

Recommendation

To ensure that the Selected Targets for Air Compliance (STAC) initiative is effective in identifying potentially unsafe concentration levels for air contaminants, the Ministry should:

- *review current air dispersion models to determine whether these models more accurately*

predict pollution levels and, where necessary, consider requiring emitters to use the most appropriate models;

- *review the STAC submission process to help ensure that sufficient information is provided on a timely basis; and*
- *where contaminant levels are predicted to exceed allowable limits, approve compliance plans that outline timely strategies to conform with legislated standards and ministry guidelines.*

Current Status

O. Reg. 419/05, regarding air pollution and local air quality, came into effect in November 2005. It requires the use of the same up-to-date and improved air dispersion models as used by the United States Environmental Protection Agency. These models provide a more accurate assessment of health and environmental impacts.

As a result of the Ministry's review of the STAC program, changes had been and were continuing to be introduced into the Emission Summary Dispersion Modeling (ESDM) report submission and review process. Risk-based procedures had been introduced to focus abatement efforts stemming from reviews on those contaminants with the greatest potential for human health and environmental impacts. In addition, consultations are required between local ministry offices and the companies to explain and clarify program expectations, and enhancements were introduced to the STAC information management system to provide better tracking and internal reporting. The STAC program had been integrated with the new regulation (O. Reg. 419/05), and the Ministry said that it is very prescriptive in terms of the information required for the ESDM report and how that information is developed and refined.

The new regulation also requires that any person who discharges a contaminant from a stationary source in excess of the applicable air quality limits notify the Ministry as soon as possible and

submit an abatement plan within 30 days. Non-compliance with the new regulation is an offence, and the Ministry said that it follows up on these cases. Ministry staff had been trained on the new regulation and received guidance on acceptable time frames for emissions abatement, depending on the severity of the human health and environmental consequences of those emissions, and on the use of available abatement tools such as compliance orders.

Environmental SWAT Team Inspections

Recommendation

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.*

Current Status

The Ministry said that when a Provincial Officer Order is issued requiring that a facility's air emissions activities be brought into compliance with the *Environmental Protection Act* and its regulations, the Sector Compliance Branch (formerly the Environmental SWAT Team) now requires written confirmation from the facility owner by a specified date that the ordered work has been completed.

To further ensure completion of follow-up work, an automated flagging system that alerts provincial officers to forthcoming compliance reviews had been developed and was in active use at the time of our follow-up. The data collection system is updated by each officer, who outlines the compliance chronology and status within the file, and this report is attached to each facility's file. The officer

updates the chronology with each report-back, and, when all the required report-backs have been received and deemed satisfactory, the file is closed.

Quality assurance and control mechanisms had been put in place to ensure the accuracy of the Sector Compliance Branch inspection database. Exception reporting is produced on a biweekly basis for supervisory follow-up with the associated officer to correct any issues such as missing data fields or errors. In addition, a data-integrity working group had been established to continuously monitor and address issues associated with the enforcement system. The Ministry had prepared guidance for all staff using the system to ensure consistency and quality in data input.

The Sector Compliance Branch was to be working in partnership with Environment Canada through the 2006/07 fiscal year on a project that would allow the Branch to develop outcome-based performance measures for the Vehicle Emissions Enforcement Unit. This project includes a detailed analysis of potential emissions reductions resulting from maintenance and repairs related to vehicle emissions. The results of such analyses should provide the Branch with the information required to develop and implement outcome-based performance measures for the Unit.