



**ONTARIO ASSOCIATION FOR
IMPACT ASSESSMENT**

*P.O. Box 2727, Postal Station D, Ottawa, Ontario - K1P 5W7
Tel: (613) 244-5300, ext. 3221; Fax: (613) 244-5430*

To: The Hon. David Anderson, P.C., M.P., Minister of the Environment,
Government of Canada
Wellington Street
Ottawa, ON
K1A 0A6

To: The Hon. Elizabeth Witmer, Minister of the Environment, Government of Ontario
135 St. Clare Avenue West, 12th Floor
Toronto, ON
M4V 1P5

From: The Ontario Association for Impact Assessment (OAIA)

10 April 2001

Dear Ministers,

Re: OFF COAL AT THREE ONTARIO POWER STATIONS: A ROLE FOR IMPACT ASSESSMENT?

The potential effects of energy generation technologies continue to have a high profile in both Ontario and Canada, as well as in the United States. Press, Radio, and Agency reports of several recent events, including Canada's receipt of 31 January 2001 requests from the Attorneys General of New York and Connecticut for an Environmental Assessment of the effects of air emissions from Ontario's six coal-burning power plants, have caught the attention and interest of the Ontario Association for Impact Assessment (OAIA).

From OAIA's examination of reports from the Ontario Ministry of Environment (see Annex 1) and from Environment Canada (see Annex 2), there appears to be an important discrepancy between the Ontario Power Generation estimates of annual nitrogen oxides (NO_x) emissions (55.8 kilotonnes in 1998; 51.6 kilotonnes in 1999), and that of Environment Canada (1999 average of 78 kilotonnes), and therefore to what extent either the Ontario or the Canadian NO_x annual caps can be met, now or in the future. Furthermore, the annual reductions in NO_x estimated for new technologies at the Lambton, Nanticoke and Lakeview Generating Stations combined (13 kilotonnes) fail to achieve either the designated Ontario or Canadian NO_x caps, or reduce any of the other coal-fired generating stations' emissions that both jurisdictions are targeting. However, there is no

disagreement between the two agencies that approximately 50% of the fossil-fuel emissions in Ontario are derived from power utilities in the United States as transboundary pollution.

On 26 March 2001, Minister Witmer announced that NO_x emissions from Ontario's five coal-fired generating stations and one gas-oil station were to be cut by 53%, and SO₂ by 25%, and that the Lakeview plant in Mississauga would no longer be allowed to burn coal as of April 2005.

The major issues connected to air pollution are:

- C the effects and costs that air pollution emissions impose on human health and the environment;
- C to what extent Ontario's fossil-fuel generation plants will contribute to Ontario air pollution emissions in the future; and,
- C are there better alternatives to the proposed technologies for the three coal-fired plants in question?

These issues are the focus of substantial current Public, Agency, and NGO attention.

ONTARIO ASSOCIATION FOR IMPACT ASSESSMENT (OAIA)

The debate over the appropriate mix of energy sources for Ontario's future has heated up. A multitude of players and interests, both inside and outside Canada, are involved. The public interest is enjoined, especially with respect to public health implications.

OAIA is a professional association of Impact Assessment (IA) practitioners and friends of the discipline (see Annex 3). Our focus is on Ontario, although we liaise with sister organizations in neighboring jurisdictions. OAIA is also an Affiliate of the International Association for Impact Assessment (IAIA).

We believe that Impact Assessment, as a discipline, has an important and unique role to play in such situations. Impact Assessment provides a structured and systematic way of defining the case, focusing on the analysis of the critical issues, and thus providing a basis for making decisions efficiently. The fact that much of the input data for such a review is widely and publicly available makes the screening and scoping assessment tasks both more essential and even more useful in this particular case.

- C OAIA recommends that the Governments of Canada and Ontario should respond positively to the requests from the two U.S. States for an assessment of the situation. We firmly believe that a joint federal/provincial assessment conducted in close cooperation with all stakeholders, including those south of the border, should be very helpful in:
 1. Addressing and hopefully resolving the current and anticipated air pollution issues in open, objective and scientifically credible fashion.
 2. Creating a workable and equitable mechanism for planning and implementing the needed mitigation and monitoring measures, including cost-sharing arrangements and assigning roles and responsibilities among the various parties.
 3. Establishing a framework for cooperative approaches in planning and conducting transboundary Impact

Assessments in the future.

- Ⓒ It should be obvious that if not addressed soon, the problem is likely to get more complicated and definitely more costly in terms of damage/risks to both human health and the natural environment on both sides of the border.

Can OAIA Help?

As an independent third party with "feet in both jurisdictions", is there a way that the Ontario Association for Impact Assessment could assist the Ontario Ministry of the Environment and Environment Canada in the resolution of their critical differences?

Perhaps this letter of advice to you as the Ministers of the Environment for Ontario and Canada from OAIA as an independent, non-partisan, professional body may be sufficient.

However, should you see a more active and engaged role for OAIA, we would be happy to discuss any such possibilities with you.

One possibility might be through a preliminary IA screening and scoping exercise that would address differences in emissions estimates, emissions standards, and whether the new technologies proposed for the three Ontario coal-fired generation facilities are environmentally (including human health) and financially cost-effective. The result would be an IA process designed to work at resolving these issues which would aim to:

- Ⓒ be acceptable to both the Ontario and Canadian governments;
- Ⓒ incorporate the views and concerns of other interested parties; and
- Ⓒ suggest a reasonable "way forward".

Ministers, we feel this case could both advance the energy generation concerns at issue and set a definitive and useful precedent for other IA issues, both pending and imminent, in Canada, Ontario and other jurisdictions with whom we share our environment and environmental decision-making. We are available at your convenience to discuss these issues further, and look forward to your responses.

Sincerely yours,

Mr. Lee Doran
President-Elect, OAIA

Mr. Paul McDonald
President, OAIA

ANNEX 1
FROM ONTARIO'S MINISTRY OF THE ENVIRONMENT

- C On 8 March 2000, a change to Ontario's Environmental Assessment Act was proposed and subsequently implemented. The Act now applies to the entire Ontario electricity sector regardless of whether in public or private ownership, triggered by the environmental significance of an electricity project.
- C Starting May 1, 2000 all gas/oil-fired and coal-fired electric power generation companies in Ontario's electricity sector to monitor and report annually on their emissions of oxides of nitrogen (NO_x), sulphur dioxide (SO₂) and a variety of other substances of concern such as mercury and carbon dioxide (CO₂): 28 substances in all. Cleaner-burning, natural gas-fired generating facilities would be required to report on only NO_x and CO₂ emissions.
- C On 17 May 2000 Ontario announced a moratorium on the sale of all coal-fired generation plants pending review of options for environmental protection; these plants will not change ownership until safeguards are in place to ensure environmental protection prior to any sale.
- C For Ontario power generators, an annual cap for NO_x of 36 kilotonnes per year, and an annual cap for SO₂ of 157.5 kilotonnes per year, starting January 1, 2001.
- C For the years 1998 and 1999, Ontario Power Generation reported NO_x emissions of 55.8 and 51.6 kilotonnes, respectively.
- C On 29 May 2000, Ontario identified deep concerns with the federal government's National Pollutant Release Inventory (NPRI) reporting system, describing it as inadequate, fundamentally flawed and not to be trusted. Some key coal-fired power generation pollutants are not yet reported through the NPRI.
- C Starting 1 January 2001, mandatory tracking and reporting of all harmful emissions by industrial, commercial and municipal emitters. Ontario Programs already in place included Drive Clean, Smog Patrol and the Anti-Smog Action Plan.
- C 5 February 2001, Ontario announced it was in a better position to assess Ontario's air quality "after investing more than \$4 million dollars in its air monitoring network", including overhauling existing monitoring stations, adding new provincial sites, improving technology for the Air Quality Index (AQI) data system for better real-time tracking and reporting.
- C Ontario's coal-fired power plants meet the US Clean Air Act standards for NO_x, while clearly bettering US standards for SO₂.
- C The United States has 217 coal-burning electricity generating plants in Ontario's airshed; Canada has 23 coal-burning plants, only five of which are in Ontario.
- C On 31 January 2001, the Government of Ontario released a new document: Managing the Environment Report; A Review of Best Practices in support of the Ontario Government's stated commitment to establishing Ontario as a leading environmental jurisdiction and as a model in the future for other jurisdictions to emulate.
- C On 5 February 2001, Ontario Power Generation requested an exemption from the Ontario Environmental Assessment Act in regard to installation of technologies to control NO_x emissions at three Ontario coal-fired generation plants at a cost of \$250-million (Selective Catalytic Reduction[SCR] for the Nanticoke and Lambton Generating Stations, and low-NO_x burners for the Lakeview Generation Station). The Ontario Power Generation Corporation estimates these

technologies will reduce Ontario's NOx emissions by 13 kilotonnes per year.

- C On 20 March 2001, Environment Minister Witmer announced the Ontario Government is reviewing air standards for the first time in more than 20 years. The province will examine levels found for 145 air pollutants, including 18 "high priority" chemicals.
- C The Ministry released two important documents on 26 March 2001: Coal-Fired Electricity Generation in Ontario and Emissions Reduction Trading System for Ontario.
- C Three Ontario diagrams: Smog Emissions; Electricity Air Emissions; and Ontario Power Generation Emission Rates Compared with U.S. Utilities.

ANNEX 2

FROM THE GOVERNMENT OF CANADA'S DEPARTMENT OF THE ENVIRONMENT

C In December 2000, Canada and the United States signed an historic agreement to significantly reduce smog-causing pollutants and improve air quality for millions of residents on both sides of the Canada-United States Border. The agreement, known as the Ozone Annex to the 1991 Canada-United States Air Quality Agreement, sets out Canada's commitment to act on transboundary pollution. It is one of five components in the Government of Canada's Clean Air Campaign, launched in May 2000. Actions on science, transportation, industrial sectors and public engagement are also included in the Campaign.

C The recent federal Speech from the Throne announced that the Government of Canada will move quickly on its Clean Air Campaign, for which \$120.2 millions have been committed.

C Monitoring: Canada maintains two air pollution monitoring networks:

The National Air Pollution Surveillance (NAPS) Network is a joint federal, provincial, territorial and municipal network established in 1969. It is primarily an urban network, with 239 air monitoring stations in over 136 sites, 360 monitors and 233 samplers. The NAPS Network gathers measurements on the components of smog: ozone, particulate matter (PM), sulphur dioxide (SO₂), carbon monoxide (CO) and volatile organic compounds (VOC). Air quality data collected by the NAPS Network have been used to demonstrate the links between air pollution and human health and also to evaluate pollution control strategies, identify urban air quality trends and forewarn of emerging air pollution issues.

The Canadian Air and Precipitation Monitoring Network (CAPMoN) is a rural network with 23 monitoring stations and one in the United States. The CAPMoN has been in operation for over 20 years. Its initial focus was on acid rain, but now smog pollutants (NO_x, PM and ozone) are also measured at some sites. Locations are chosen to ensure measurements are regionally representative and are not affected by local sources of air pollution. Data from the CAPMoN are used to assess transboundary transport of pollutants. The new funding will add measurements of ozone and PM at several stations of the augmented CAPMoN.

C Reporting:

The third major component of the funding to implement the Ozone Annex is a \$22.9-million expansion of the National Pollutant Release Inventory (NPRI), Canada's only legislated, nationwide, publicly accessible inventory of pollutants released to the environment. The NPRI was established in 1992 to provide Canadians with information on pollutants released by facilities in their communities. All facilities that manufacture, process or use more than threshold amounts of the 268 substances on the NPRI list are required to report. The NPRI is published annually. The NPRI list of substances will be expanded in 2002 to include precursors of ground-level ozone and components of smog (NO_x, VOCs, sulphur oxides (SO_x), PM₁₀, PM_{2.5} and CO). At the same time, the number of industrial facilities reporting pollutant emissions is expected to rise from 2,100 in 1999 to more than 7,000 by 2005. This expansion of the NPRI will enable improved tracking and reporting for industrial emissions. It will also allow measurements of reductions that will be achieved through the various commitments included in the Ozone Annex for these air pollutants.

C The Canadian and American governments are required to report their progress in implementing the Ozone Annex every two years.

- C Canadian Commitments under the Ozone Annex to the 1991 Canada-United States Air Quality Agreement set annual caps by year 2007 of 39 kilotonnes of NO_x (as nitrogen dioxide, or NO₂) emissions from fossil-fuel power plants in central and southern Ontario, and five kilotonnes in southern Quebec.
- C The agreed cap of 39 kilotonnes of NO_x for Ontario represents a 50% reduction in NO₂ from the 1999 average of 78 kilotonnes of NO_x.
- C Diagram: Transboundary Air Flow into Ontario: Canadian Geographic May/June 2000.

ANNEX 3
ABOUT OAIA AND IMPACT ASSESSMENT

OAIA is a professional association of impact assessment (IA) practitioners and friends of the discipline. Founded in 1990, OAIA has a current membership of about 150 people. Our focus is on Ontario, although we also liaise with sister organizations in neighboring jurisdictions.

OAIA is also an Affiliate of the International Association for Impact Assessment (IAIA), founded in 1980 and described as "the leading global authority on best practice in environmental assessment, management and policy."

OAIA likes to characterize itself as "A meeting place for those who care about impact assessment and its future in Ontario and Canada." We believe that Impact Assessment is important, even vital, to good decision-making, and that it is an important first step to achieving sustainability now and in the future. Hence our direct professional interest in the environmental and social implications of energy generation options and activities in Ontario as well as Canada, especially when provincial, national, and international problems and issues are involved, as in this case.

Impact Assessment: origins and aspirations

Impact assessment (IA) originated in the late 1960's as an attempt to predict with a level of scientific rigour the environmental effects of specific, individual projects. While it achieved some modest successes, much of the focus of IA then was on baseline data collection and prediction of impacts. Its usefulness as a planning and decision-making tool was not obvious to many.

More recently, IA has grappled with issues beyond the level of the individual project. Public concerns about the cumulative effects of several or many projects, the potential for impacts at regional and/or sectoral levels, and even the impact implications of strategic policies and decision-making have come to the forefront. IA now looks beyond the specific project with a view to the management and amelioration of environmental and social impacts on wider geographic scales and longer timeframes.

The discipline of impact assessment, after 30-plus years, has achieved a certain maturity as well. It brings a diverse and abundant tool kit to the decision-making table. Some of its practitioners have decades of experience in doing this work. They are skilled in thinking "outside the box" of the project-specific assessments where IA began. We believe that our members, Ontarians and Canadians, bring world-class skills to the discipline of IA. Perhaps those skills could be of particular use in the present instance.

