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August 30, 2001

The Honourable Elizabeth Witmer
Minister of the Environment
Ministry of the Environment
12th Floor, 135 St. Clair Avenue West
Toronto, Ontario
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Dear Minister Witmer:

Re: Comments on Emissions Trading and NO_x and SO₂ Emission Limits for the Electricity Sector - EBR Registry Number RA01E0020

The emission caps and credit-trading system proposed by the Ministry of the Environment has far-reaching consequences for air quality and human health in the City of Toronto. The legislation proposes to cap nitrogen oxides (NO_x) and sulphur dioxide (SO₂) emissions from the power generation sector and to introduce a system of trading emissions credits. However, the proposed system will not bring about a substantive reduction in pollutant emissions from this sector.

From a public health perspective, the system proposed by the Ministry of the Environment suffers from several key weaknesses.

- **The proposed system will not ensure that emissions are reduced and air quality is improved.** As described in the attached detailed comments (Appendix 1), the caps for both NO_x and SO₂ are too high to ensure that emission reductions are achieved. This is particularly true because the proposed emissions-trading system would allow more NO_x and SO₂ emissions than the stated caps.
- **The proposed system will not stimulate energy efficiency or the use of cleaner alternative energy sources.** While the proposal does set aside a portion of allowable emissions for renewable energy and energy efficiency projects, this allocation is an insufficient incentive. The definitions of renewable energy and conservation projects are also too restrictive. For example, energy-efficiency programs would include only lighting retrofits. The definition excludes clean technologies such as deep lake water cooling and landfill methane gas capture.

- **The proposed system will impede governments from meeting local, national and international air quality commitments.** The City of Toronto has committed to purchasing twenty-five percent of its energy as green power and has undertaken numerous energy-efficiency and emission-reduction programs. As you know, the City is required to purchase the lowest-cost energy available. If insufficient incentives reduce the availability of low-cost 'green' energy, the City will have no choice but to purchase lower-cost, but more-polluting energy. As well, the proposed scheme could negate the air quality benefits accruing from energy-efficiency and emission reduction programs investments by the City of Toronto. Finally, Ontario's obligations under the Ozone Annex of the Canada-U.S. Air Quality Agreement will not be met by the proposed scheme.

Your signature on the Toronto 2001 Inter-Governmental Declaration on Clean Air (see Appendix 2) commits the Ministry of the Environment to improving air quality in the province. The provincial government is obligated to design and implement a forward-thinking, fair emissions reduction and management system that will be protective of environmental quality and human health.

There have been 20 smog days so far in the summer of 2001. Poor air quality increases the incidence of cardiovascular disease and respiratory problems. Toronto Public Health's recent report attributed approximately 1000 premature deaths and 5500 hospitalizations annually, in Toronto alone, to elevated concentrations of air pollutants including nitrogen dioxide (NO₂) and SO₂. The air quality index this year was as poor in cottage country as it was in urban centres. Ontario residents need a province-wide air quality solution.

Diverse stakeholders commented on the previous version of this proposal and expressed strong reservations about the policy's ability to reduce emissions. Please find attached my previous submission (Appendix 3). Clearly, the stakeholders' recommendations were not used to inform the current proposal. I urge the Ministry to fulfil its obligation to protect the health of Ontario's people and environment by allowing further opportunity to comment after August 30th and by consulting with knowledgeable City of Toronto staff on the technical elements of the emissions-trading system.

Yours truly,

Original signed by Dr. Sheela V. Basrur

Dr. Sheela V. Basrur
Medical Officer of Health

Attachments:

Appendix 1:

Detailed comments on Emissions Trading and NO_x and SO₂ Emission Limits for the Electricity Sector - EBR Registry Number RA01E0020

Appendix 2:

Toronto 2001 Inter-Governmental Declaration on Clean Air

Appendix 3:

Air Emissions Caps for Ontario's Electrical Sector and Emissions Trading Framework – March 2001. Comment from the Medical Officer of Health on Discussion Paper - EBR No. RA01E0009.

Appendix 4:

Letters of support from other organizations and departments.

cc: Gord Miller, Environmental Commissioner of Ontario
 Tony Clement, Minister of Health and Long-Term Care
 Helen Johns, Associate Minister of Health
 Jim Wilson, Minister of Energy, Science and Technology
 Jim Flaherty, Minister of Finance
 David Anderson, Federal Minister of the Environment
 Paul Martin, Federal Minister of Finance
 Allan Rock, Federal Minister of Health
 Ralph Goodale, Federal Minister of Natural Resources
 John Hutchison, Senior Policy Advisor, Air Policy and Climate Change, MOE
 Philip Jessup, Executive Director, Toronto Atmospheric Fund
 Joyce McLean, Manager, Green Energy Services, Toronto Hydro
 Barry Gutteridge, Commissioner, Works & Emergency Services, City of Toronto
 Richard Morris, Manager, Energy Efficiency Office, Works & Emergency Services, City of Toronto
 John Warren, Director, Technical Services Division, Works & Emergency Services, City of Toronto
 Karl Hemmerich, Manager, Air Quality Improvement, Works & Emergency Services, City of Toronto
 Drew Shintani, Policy & Research Analyst, Works & Emergency Services, City of Toronto
 Robin James, Co-ordinator, Clean Air Canada
 John Wellner, Director, Air Programme, Pollution Probe
 Monica Campbell, Manager, Health Promotion and Environmental Protection Office, Toronto Public Health
 Karen Clark, Research Consultant, Toronto Public Health
 Sarah Gingrich, Research Consultant, Toronto Public Health

Appendix 1

Detailed comments on Emissions Trading and NO_x and SO₂ Emission Limits for the Electricity Sector - EBR Registry Number RA01E0020

An emissions-trading system should ensure that emissions will decline, air quality will improve, and human and environmental health will be enhanced. While emissions trading has been used in other jurisdictions with some success, the Ministry's proposal is unlikely to achieve similar results. Furthermore, innovative health-protection and energy-conservation programs underway at the City of Toronto would be defeated or undermined were the proposed system to be implemented.

The comments below describe the proposed system's weaknesses from a public health perspective. I do not offer comments on the technical elements of an emissions-trading system. My comments focus on the City of Toronto's responsibility, along with the provincial and federal governments, to ensure the protection of environmental quality and human health. However, this does not imply that I am in agreement with those aspects of the proposal that are not addressed in this letter. The Works and Emergency Services Department of the City of Toronto will be commenting separately on the technical aspects of the proposal.

1. The proposed emission caps for NO and SO₂ are too high to ensure emissions reductions and improve air quality and health.

1A) NO caps.

The proposed stated caps ("allowances") for NO emissions are substantially higher than those proposed by the Ontario Clean Air Alliance and supported by Toronto City Council and the Toronto Board of Health (Table 1). While it appears that the caps would result in modest emissions reductions as written, the allowable emission credits (potentially from uncapped sources) must be considered as well. When the real proposed caps are calculated by adding an additional 33% of emissions credits (potentially from uncapped sectors) to the stated caps, it becomes clear that the real caps are much too high to limit NO emissions. Regarding credit creation from uncapped sectors, see Section 3, below.

Table 1. Annual nitric oxide (NO) emissions and caps for power generation in Ontario (kilotonnes/year).

Year	Recommended cap supported by Toronto City Council and Board of Health (Ontario Clean Air Alliance)	Proposed cap ("allowance") for all applicable facilities	Real proposed cap (allowance plus emission credits) for all applicable facilities
2002 – 2006	10*	36.0	47.9
2007-2009		28.0	37.2
> 2009		28.0	37.2

*OCAA's recommended cap is based on 25 kt NO for the entire electrical sector made up of 10 kt from coal-fired plants, 12 kt from non-utility generators and 3 kt from new natural gas-fired generators.

The Ozone Annex of the Canada-U.S. Air Quality Agreement commits the Province of Ontario to capping electrical sector NO_x emissions from southern Ontario's Pollutant Emissions Management Area (PEMA) at 25 kt NO (or 39 kt NO₂) by 2007. The province's stated 2007 emission cap for the PEMA (25.5 kt NO) just meets this target. However, when the allowable credits are incorporated to calculate the real emissions cap for this region, the Province's proposed 2007 cap for the PEMA (33.9 kt) is 8.9 kt NO (or 36%) higher than this commitment. While the stated emission cap for NO is in compliance with the Ozone Annex, trading of the allowable emission credits would push Ontario's emissions far over this international commitment.

1B) SO₂ caps.

Relative to the attainable caps recommended by the Ontario Clean Air Alliance and supported by Toronto City Council and the Toronto Board of Health, the proposed SO₂ caps are extremely high (Table 2). Considering the role that SO₂ plays in forming particulate pollution, and given the federal government's recent classification of particulate pollutants as toxic under the Canadian Environmental Protection Act, it is the province's responsibility to implement lower caps for SO₂ in order to protect environmental quality and human health. Lower caps on both NO and SO₂ are needed to reduce emissions, to drive energy conservation and innovation in clean technologies and to improve air quality in this province.

Table 2. Annual sulphur dioxide (SO₂) emissions and caps for power generation in Ontario (kilotonnes/year).

Year	Recommended cap supported by Toronto City Council and Board of Health (Ontario Clean Air Alliance)	Proposed cap ("allowance") for all applicable facilities	Real proposed cap (allowance plus emission credits) for all applicable facilities
2002 – 2006	17.5	157.5	173.3
2007-2009		131.0	144.1
> 2009		131.0	144.1

2. The proposal offers little incentive for renewable energy and energy conservation initiatives.

The proposed scheme makes some provision for renewable energy and conservation projects. However, the emissions allowance set-aside is too small and the definitions of renewable and conservation projects are too restrictive.

The City of Toronto has committed to purchasing 25% of its energy as green power by

2005. As proposed, the provincial emissions caps and trading rules will prevent the city from achieving this target. The following programs will be hampered by the proposed provincial system: The *GreenSaver Home Rewards Program* financially rewards Toronto homeowners for completing energy efficiency retrofits. The social marketing campaign *20/20 –The Way to Clean Air* promotes individual energy conservation. Toronto Hydro and the City of Toronto have a program to capture landfill methane emissions for use as renewable fuel. The City's *Urban Heat Island Mitigation and Adaptation Project* and *Green Roof Infrastructure Demonstration Project* are both designed to reduce energy use and improve air quality. The City has invested in these programs in order to conserve energy, reduce air pollution and improve environmental and human health. The following points enumerate how the proposed emissions caps and trading system will work against these types of initiatives by the City of Toronto or other organizations:

2A) The emission allowance set-aside for renewable and energy conservation programs is too small to produce an incentive.

Building the expertise and infrastructure in Ontario for conservation and renewable energy production would generate real emissions reductions, improve air quality and health, and position Ontario to be a leader in this important sector. The proportion of the NO and SO₂ allowances allocated for renewable energy and conservation projects should be enhanced to increase the prevalence and affordability of green power.

One kilotonne of nitric oxide (NO) and one kilotonne of SO₂ allowances are set aside as incentives for renewable energy and conservation initiatives. However, from 2002 to 2006, these allowances represent only 2.8% of the NO and 0.6% of the SO₂ total annual emissions allowances in the regulation. From 2007 to 2009, these percentages increase to 3.6% of NO and 0.8% of SO₂ total allowances. While encouraging renewable and conservation projects is a positive step, these allowances are too small relative to total allowances to act as a sufficient incentive for conservation and renewable energy initiatives. This will be especially true in the future as renewable energy and conservation systems become more prevalent. The set-aside should be increased over time to reflect this demand.

2B) The provincial definitions of renewable energy and energy conservation projects are too restricted.

Unlike the federal definition, the provincial definition of renewable energy does not include methane capture and anaerobic digestion. It also excludes deep lake water cooling and geothermal energy sources. Pollution-reduction programs using these renewable energy sources would not be recognized. As well, the provincial definition of energy efficiency projects refers only to lighting retrofits. Innovative energy efficiency programs would not be eligible for the emission credit incentives that are available to traditional producers of energy from fossil fuels. These restrictions will discourage investment in energy conservation and renewable energy programs.

2C) High emissions from power generation will eliminate the air quality benefits arising from the City of Toronto's investments in energy conservation and green energy.

The City of Toronto has invested in numerous innovative programs to improve the city's air quality. Implementation of the proposed system would potentially allow emissions from the power generation sector to remain high, counteracting the benefits of air quality improvements made to date in the City of Toronto.

2D) Short time periods for credit creation discourage investment in new renewable energy and conservation technologies.

Stimulating investment in new undertakings would encourage energy efficiency and renewable energy projects relative to those focusing on energy production from traditional fossil fuels. Reduced emissions and more affordable green power would be expected to result.

The proposed system limits the creation of emission credits to five years of a project's life, even if the project generates power for a longer period. This creates a disincentive to undertake new initiatives and therefore disproportionately impacts the green facilities of the future. To encourage investment in clean technologies in the City of Toronto and elsewhere, credit creation should be based on the life of the measure.

3. The rules for credit creation and trading between capped and uncapped sectors are not well enough defined to ensure that emissions will be reduced.

The purpose of capping a sector's emissions and allowing credit trading is to create financial incentives for reducing pollutant emissions. If not carefully designed, a system that allows uncapped sectors to create credits for sale to capped sectors could distort this process, since the proposed regulation allows those sectors to create credits without reducing their total emissions.

The province has announced that the electricity sector is the first sector upon which emission caps for NO_x and SO₂ will be imposed. The province plans to implement "emissions limits" for other sectors in the future for the purpose of achieving long-term emission reduction targets. The overarching goal and outcome of Ontario's emissions caps and trading system must be to reduce overall emissions and improve air quality, and I encourage the province to redesign and clarify the proposed trading rules to ensure that emissions will substantially decrease. It is advisable to defer trading of emission reduction credits until emissions caps for all sectors are defined.