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February 19, 2003

**To: The Honourable Chris Stockwell  
Ontario Minister of the Environment**

**Re: Discussion Paper on Ontario's Clean Air Plan for Industry  
(CAPI)**

Dear Minister:

I am writing to you on behalf of the Ontario Public Health Association (OPHA), a non-profit, volunteer organization that represents many of the staff working in public health units across Ontario. Our members include the physicians, environmental health managers, epidemiologists, nurses, toxicologists, researchers, and policy analysts responsible for maintaining public health in their communities. As such, our members are deeply concerned about Ontario's air quality and its impact on the health of citizens across this province.

Let me begin by saying that the OPHA is pleased to see that you and your Ministry have taken seriously the need to develop a comprehensive air quality plan for Ontario's industrial sector. The Ministry of the Environment report, "Discussion Paper on Ontario's Clean Air Plan for Industry", is a thoughtful piece which demonstrates that much background research and analysis has been undertaken by the Ministry on this issue.

We have five points that we would like to emphasize at this point in the Ministry's development process:

- 1. The Ministry should aim for 2010 as the target date for the 45% and 50% emission reductions targets for nitrogen oxides (NOx) and sulphur dioxide (SO2) respectively.**

By fully committing to a 2010 target date for both, the 45% reduction in NOx emissions and the 50% reduction in SO2 emissions, the Ministry of the Environment can increase the chances that Ontario will comply with the 65 ppb Canada-wide Standard (CWS) for ground-level ozone and the 30 ug/m3 CWS for inhalable particulate matter (PM2.5) established by the Canadian Council of Ministers of the Environment (CCME) for attainment by 2010.

- 2. The industrial sector must contribute its share to emissions reductions, and those reductions must be enshrined in regulations that can be enforced by the provincial government.**

Regulatory actions taken by both the federal and provincial governments in recent years are expected to significantly reduce emissions of NOx and SO2 from the mobile sector in the coming years. These reductions however, will not be sufficient to achieve the 45% NOx target or the 50% SO2 target by 2010. Nor is it clear that these reductions will be sufficient to ensure compliance with the ozone and PM2.5 CWS established for attainment by 2010. Therefore it is important that the industrial sector contribute its share to these short-term targets, as well as to future targets that must be established to improve air quality in Ontario.

The public health sector feels strongly that the provincial government must establish mandatory regulations that identify the emission reductions expected from each industrial facility, in order to ensure that its emissions reduction targets and air quality objectives are achieved. When the province's past and projected emissions reductions are analysed, it is apparent that the greatest emissions reductions have been made, and will be made, in those sectors that have been subjected to regulations that have mandated the emissions reductions required.

**3. Establish hard emission caps, policies and programs that would encourage a phase-out of coal-fired power plants.**

Work that the OPHA has done on Ontario's electricity sector suggests that much of the "gap", between the province's emission targets and the emissions estimated for 2010, could be eliminated by phasing out coal-fired power plants. This is a goal, which we believe, could be attained by 2010 with the aggressive promotion of energy efficiency and renewable technologies, and some reliance on natural gas-fired generators (see Table 1 below).

This phase-out would simultaneously reduce carbon dioxide emissions in this province by up to 20% (i.e. by up to 35,000 kt per year), and would go a long way towards eliminating the "gap" between Ontario's Kyoto "commitment" and the Ministry's estimates of greenhouse gas emissions for 2010 (i.e. approximately 45,000 kt per year).

<b>Table 1: Emissions of SO2 and NOx, MOE Estimates for 2010 &amp; Estimates with Phase-out of Coal-Fired Power Plants in Ontario by 2010</b>				
	2010 - SO2MOE Estimates (kt)	2010 - SO2Coal Phase-out (kt)	2010 - NOxMOE Estimates (kt)	2010 - NOxCoal Phase-out (kt)
Electricity	131	0	43	0 to 5
Total Emissions	544 to 551	413 to 420	396 to 435	353 to 397
Target	442	442	363	363
Gap	102 to 109	-29 to -22	33 to 71	-10 to 34

**4. An emissions trading framework is acceptable only if it can be designed to ensure that total emissions in the regional air shed are being reduced according to established targets and timelines, and that air quality is being improved in all communities in that regional air shed.**

The public health sector feels very uneasy about emissions trading as a framework for reducing air emissions for two reasons: 1) it does not effectively address the health impacts that can be experienced by communities that surround large point sources; and 2) complex emission trading rules can make it difficult to evaluate the overall impact on annual emissions, air quality and human health. On the other hand, the public health sector does appreciate that an emissions trading framework can motivate continuous improvements in emissions reductions by creating the funds to fuel on-going reductions in emissions.

The OPHA could endorse an emissions trading framework for the province only if it felt assured that the framework would bring about significant improvements in air quality in local communities across the regional air shed. In order for this to be achieved, we believe that, as a minimum, the emissions trading system would have to establish: 1) hard emission caps for all sectors included in the emissions trading framework; and 2) emission caps that drive significant reductions in air emissions across the air shed. The emissions trading system must also be designed to ensure that air quality improvements are shared by communities across the regional air shed.

**5. The Ministry should acknowledge that the 45% and 50% reduction targets for NOx and SO2 are the first in a series of steps that will be required to protect the public from poor air quality.**

The province's commitment to reduce emissions of NOx and volatile organic compounds (VOCs) by 45% of 1990 levels was based upon the goal of reducing by 75%, the number of times per year that ozone readings in Ontario exceed 80 ppb. While this is a laudable goal, it must be seen as the first in a series of steps that will be required to protect the public from preventable health impacts.

In 1999, the Federal Provincial Working Group on Air Quality Objectives and Guidelines recommended as health based reference levels 20 ppb and 25 ppb for ground-level ozone as the lowest air levels clearly and consistently associated with premature deaths and respiratory hospitalizations respectively. The same Working Group recommended Reference Levels of 25 ug/m<sup>3</sup> for PM10 and 15 ug/m<sup>3</sup> for PM2.5 (24-hour) as the lowest air levels that have been clearly and consistently associated with premature deaths and hospitalizations. This Working Group also concluded that there is no level of exposure for either ozone or particulate matter that is without health impacts.

The recommendations and conclusions of the Working Group led the Health Caucus involved in the CWS consultation process to call for:

1. a 24-hour PM2.5 standard of 25 ug/m<sup>3</sup> for 2010 and of 20 ug/m<sup>3</sup> in 2015; and
2. an 8-hour ozone standard of 60 ppb in 2010 and of 50 ppb in 2015;

with an overall plan to further reduce levels of ozone and PM towards background levels.

For this reason, while we applaud the Ministry's efforts to establish a plan that will ensure that the province complies with its 45% and 50% targets for NOx and SO2, we would encourage it to develop this plan with an acknowledgement that it addresses the first in a series of steps that will be needed to protect the public from the preventable health impacts associated with poor air quality.

We thank you for giving us this opportunity to comment on the Ministry's discussion paper, and we look forward to reviewing a proposed Clean Air Plan for Industry in the near future.

Yours sincerely,

Dr. Jack Lee  
Executive Director

cc. Eric Loi, Senior Policy Coordinator, Ontario Ministry of the Environment