

**Briefing Paper Regarding Cumulative Effects under Ontario Pollution Law  
Ecojustice and Canadian Environmental Law Association  
November 2, 2009**

**The Problem – Cumulative Air Pollution in Ontario**

Ontario's current air pollution laws do not adequately protect human health and the environment, as they do not regulate for cumulative effects in an appropriate and meaningful manner.

Pollution in multi-pollutant, multi-facility areas, pollution in areas with significant background levels of pollutants or in areas with pollutant levels from local sources that exceed pollutant standards is not adequately regulated in Ontario air pollution laws.

**1. Standard Setting**

Ontario is currently considering standards under *Regulation 419/05* for contaminants<sup>1</sup> that are known to have significant health impacts. Setting robust health-based standards for these contaminants would contribute in a meaningful way to a cumulative impact analysis in certificates of approval and development of pollution reduction plans in contaminant hotspots.

As a result, the new pollutant standards being considered by the Ministry need to be enacted and standard setting needs to continue for other contaminants known to have health impacts.

**2. Instruments**

Ontario's air pollution laws do not establish a process to require or even allow decision-makers to consider the potential cumulative impacts from their decisions or options for alleviating those cumulative impacts in a rigorous, predictable, meaningful manner in issuing certificates of approval, in control orders or in site-specific standards for individual facilities.

**3. Contaminant hotspots in Ontario**

Air pollution in Ontario contaminant hotspots like Sarnia, Sudbury, Hamilton, Windsor and Sault Ste Marie evidences serious deficiencies in the air pollution regulatory regime. Often, it is low income and other vulnerable communities in these cities that are disproportionately exposed to particularly high levels of cumulative contaminants.

Given that these areas have been impacted to such a great degree by historical permitting by MOE and continue to be by additional approvals provided by the Ministry, a legislated planning process needs to be established to ensure pollution in these hotspots is reduced over time to protect residents' health and the environment.

---

<sup>1</sup> Benzene, 1,3 – Butadiene, Chromium compounds, Dioxins, Furans, Manganese Compounds, Nickel Compounds, Polycyclic Aromatic Hydrocarbons, and Uranium Compounds.

## **The Solution – Recommendations**

**Recommendation 1:** The MOE promptly enact the standards proposed under *Regulation 419/05* for Benzene, 1,3 – Butadiene, Chromium compounds, Dioxins, Furans, Manganese Compounds, Nickel Compounds, Polycyclic Aromatic Hydrocarbons, and Uranium Compounds.

**Recommendation 2:** Amend the *Environmental Protection Act* to require a detailed analysis of cumulative impacts previous to instruments being issued under the Act.

**Recommendation 3:** Amend the *Environmental Protection Act* to establish a contaminant reduction planning process for Ontario hotspots.

Attached is draft legislative language that we recommend be enacted for the purpose of implementing our latter two recommendations.

## **Proposed Amendments to Address Cumulative Effects**

### **1: Instruments**

#### **Consideration of Cumulative Air Contaminants in Certificates of Approval, Control Orders and Site Specific Standard Setting**

The cumulative effects of air contaminants shall be considered when decisions are made under the Act, including when a decision is made to:

- (a) Issue a certificate of approval under section 9;
- (b) Issue a control order; or
- (c) Alter a health-based standard under section 32 of *O.Reg. 419/05*.

(1) The Minister shall ensure that a cumulative impact report be prepared as part of an application for:

- (a) A certificate of approval;
- (b) An alteration of standard under section 32 of *O.Reg. 419/05*;
- (c) Any other instrument where cumulative impacts to human health may result.

(2) A cumulative impact report shall include:

- (a) An analysis of existing background levels of air contaminants in the area;
- (b) An analysis of all air pollution releases approved by the Ministry through certificates of approval, control orders, or other instruments and standard setting;
- (c) Information on health impacts associated with contaminants to be emitted under the certificate of approval; and
- (d) An analysis of possible cumulative impacts to human health and the environment associated with the air contaminants existing in the area when combined with the contaminants to be emitted under the certificate of approval.

(3) A certificate of approval, alteration of a standard, or other instrument shall not be approved that will allow a contaminant discharge at a level at which the cumulative effect of the contaminant, in conjunction with other air contaminants released or present in the area, will exceed,

- (a) An upper risk threshold of 100 in 1 million for all carcinogens at a receptor; or
- (b) The cumulative air pollutants at receptors exceed a hazard quotient of 10 for non-carcinogens at a receptor.

## **2. Contaminant Reduction Planning**

### **Designation of Cumulative Contaminant Reduction Area**

The Minister shall designate an area of the Province as a cumulative air contaminant reduction area where:

- (a) The cumulative air pollutants at a receptor in the area exceed an upper risk threshold of 100 in 1 million for carcinogens (assuming carcinogenic risk factors from contaminant exposures are additive);
- (b) The cumulative air pollutants at receptors exceed a hazard index of 10 for non-carcinogens (assuming the hazard index is the sum of the hazard quotients from non carcinogen contaminants that effect the same organ or organ systems (ex. respiratory, neurological); or
- (c) There is evidence of health or environmental impacts associated with cumulative air pollutants.

### **Contaminant Reduction Plan**

(1) After the Minister has designated an area as a cumulative contaminant area under section 21.1, the Minister shall prepare a contaminant reduction plan for the area within one year.

(2) The contaminant reduction plan shall:

- (a) Set out the types of air contaminants in the area and their sources;
- (b) Establish a timeline for reducing the pollution set out in (a);
- (c) Establish incremental area-specific air contaminant standards;
- (d) Establish loading limits for persistent contaminants and bioaccumulative contaminants in the area;
- (e) Establish technical standards for sources of air pollutants, including requirements to meet the lowest achievable emission rates and implement maximum achievable control technologies and processes within individual facilities;
- (f) Establish a monitoring and modeling program to track emission rates and reductions;
- (g) Set out how pollution originating outside the area will be reduced;
- (h) Establish how vulnerable members of the public within the area will be specifically protected; and
- (i) Establish how vulnerable members of the public within the area will be engaged in plan implementation.

(3) “Vulnerable members of the public” are people in the area bearing a disproportionate burden of the impacts associated with the cumulative contamination.

(4) A contaminant reduction plan shall ensure that the cumulative air pollutants in the area do not exceed an upper risk threshold of 100 in 1 million for carcinogens or exceed a hazard quotient of 10 for non-carcinogens within 10 years.

## **Public Consultation**

(1) Before finalizing the plan, the Minister shall consult the public concerning those items set out in subsection 21.2 (2)(a) through (g) by

- (a) Posting a draft contaminant reduction plan to the Environmental Bill of Rights registry for 60 days; and
- (b) Holding at least one community meeting in the area.

(2) The Minister shall publish the finalized contaminant reduction plan.

## **Toxic Reduction Planning**

Toxic reduction plans must be prepared and implemented under the *Toxic Reduction Act* by facilities identified in the area.

## **Progress Reports**

The Minister shall publish progress reports under the plan every year, including updates on how contaminants have been reduced in the area and estimates on how soon the contaminant reduction targets set in the plan will be met.

## **Plan Review**

A contaminant reduction plan shall be reviewed every 3 years and amended to ensure compliance with subsection 21.2(3).

## **Certificates of Approval to be Consistent with Plan**

Certificates of approval, control orders, standard alterations and other instruments issued in the area shall be consistent with the pollutant reduction plan developed under this section and shall not allow for an increase in pollutants in the area.

## **Minister to study synergistic effects**

Within one year, the Minister shall publish a report setting out how the Ministry will assess and address synergistic effects from the interaction of contaminants in its consideration of cumulative contaminants.