



**Presentation to the Parliamentary Committee for the Five-Year  
Review of the Canadian Environmental Protection Act 1999**

**By**

**The Canadian Lung Association**

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Mr. Chairman, distinguished Members of the House of Commons Standing Committee on Environment and Sustainable Development, fellow witnesses:

On behalf of the Board of Directors of the Canadian Lung Association and our affiliates across the country, and the 1-in-5 Canadians who suffer from respiratory disease, thank you for the opportunity to address this committee on this very important issue.

*The Lung Association is one of Canada's oldest and most respected health charities. Recognized as a leader in lung health, our mission is to improve and promote lung health through support programs, education, research, and advocacy. Key areas of focus include: outdoor and indoor air quality, chronic obstructive pulmonary disease (COPD), asthma, smoking prevention and cessation, flu, and lung disease management. The Association represents 1-in-5 Canadians with respiratory disease.*

The Lung Association is concerned with any exposure to environmental toxins that impact respiratory health, and particularly air pollution and greenhouse gases, which have common sources and common solutions.

- Using epidemiological, time-series, analyses of mortality and hospital admission data from eight Canadian cities, Health Canada estimated that air pollution causes 5,900 deaths per year in these cities. Mortality numbers are at the top of the health effects pyramid, and implicate further thousands of people impacted with serious but non-fatal outcomes. ([www.hc-sc.gc.ca/ahc-asc/media/nr-cp/2005/2005\\_32bk2\\_e.html](http://www.hc-sc.gc.ca/ahc-asc/media/nr-cp/2005/2005_32bk2_e.html))
- Using an Illness Cost of Air Pollution Model on data from Ontario for the year 2005, the Ontario Medical Association estimated that air pollution costs Ontario \$7.8 billion dollars a year in losses due to death, hospital admissions, emergency room visits, lost productivity and pain and suffering. (Ontario Medical Association, ISBN 0-919047-54-8)
- The combined health impacts from poor air quality and climate change have been assessed by Environment Canada and Toronto Public Health. For all years between 1954-2000, the average annual mortality in Toronto from both heat and exposure to air pollution was 1,082. Extreme heat days have been more common in recent years and one can expect annual mortality rates to be higher now than in the last century. (Cheng, C.S. and Campbell, M.C. Differential and Combined Impacts of Winter and Summer Weather and Air Pollution due to Global Warming on Human Mortality in South-Central Canada. Technical Report).

These and many other studies underscore the need to take action to reduce air pollutants and greenhouse gases as part of a holistic framework to improve respiratory health in Canada. Specifications for pollution prevention and risk management in CEPA will be a critical component for use during the development of a National Framework for Respiratory Disease in Canada, currently underway by the Canadian Lung Association.

## **Priority recommendations for revisions to the Canadian Environmental Protection Act:**

1. The focus of the Act must be on protection of human health and the environment. Reference to economic considerations should only occur in relation to the process of setting standards and regulations. Thus the existing reference to sustainable development should be clearly secondary.
2. It is essential not only to keep the Precautionary Principle as the cornerstone of CEPA, but also to expand its definition to specifically address the concept of “duty to act” and the concept of joint protection of human health and environmental health, explicitly engaging the actions of both the Minister of Health and the Minister of Environment.
3. The implementation of the Act is as important as the Act. Additional resources should be allocated to Health Canada and Environment Canada to improve their ability to implement the Act.

## **Given that the Act must first and foremost protect health, the following should be secured within the Act:**

- The term “toxic” must be retained in the Act. It is a scientifically accurate word and conveys health-risk meaning to the public and policy-makers. The following definition of the term should be used in CEPA.

Primarily the narrow interpretation of when a substance can be considered “toxic” under Section 64 of CEPA is based on releases to the environment, which is contrary to traditional and scientific usage of the term.

Recommendation: The definition of a toxic substance as contained in the Health Canada PSL assessment program “Background” should be provided in CEPA as follows: *“A substance is toxic if it has an inherent potential to cause acute or chronic adverse effects in living organisms, including humans, via ingestion, inhalation, or skin contact.”*

Designating a substance not toxic under CEPA is misleading and results in confusion, because it has the effect of misrepresenting the inherent toxicity of substances that have been recognized as toxic by international bodies, but that have been assessed by Health Canada as not toxic under the interpretation of a toxic substance in CEPA Section 64. These have included many high-volume toxic substances, such as toluene.

In addition the CEPA interpretation puts the emphasis on smokestack and end of pipe releases into the environment, but does not directly include the presence of toxic substances in products which are of concern because infants and children are exposed to these in their homes. In addition, the CEPA interpretation of a toxic substance, because first it requires a substance to be entering the environment in a quantity that may have an immediate or long-term harmful effect on the environment or its biological diversity, gives lesser weight to human health, and must constitute a DANGER – (not “a risk” which is usual in toxicology ) to human health. “Danger” should require that the precautionary principle be invoked.

The interpretation of when a “substance is toxic” under Section 64 might be clearer if it referred to a “substance for control” or “hazardous substance”.

The following is a proposed revised Interpretation: “A substance for control is a substance that is toxic, or that is entering, or may enter the environment - including the built environment, in a quantity or concentration or under conditions that constitute, or may constitute, a hazard to human life or health or the environment.”

Ref: Barbara McElgunn, Learning Disabilities Association

- Carbon dioxide, being of greatest concern for its contribution to climate change, must remain in the Act as a pollutant to be subject to regulatory control.
- All decisions regarding toxic substances should explicitly consider exposures to vulnerable populations such as children, pregnant women, aboriginal groups and people more-than-normally exposed to multiple pollutants. The greatest, long-term damage is done to children, at exposures lower than those considered “safe” by many health risk studies. A 10-fold child protection factor should be used in risk assessments.

When assessing risks to humans, CEPA should give attention to the need to consider aggregate exposure to substances [from a range of exposure sources], and cumulative effects of substances [from those with similar modes of action/effects on health endpoints]. We are not exposed to chemicals one by one.

The following is a quote from the executive summary of a report from the Global Development and Environment Institute of Tufts University: The costs of preventable childhood illness: The price we pay for Pollution<sup>1</sup>.

*A growing body of scientific literature implicates toxic exposures in childhood illnesses and developmental disorders. When these illnesses and disabilities result from environmental factors under human control, they can and should be prevented. This is not only a moral issue, concerning our responsibility to avoid doing harm. As important as the moral dimension may be, it is reinforced by the hard facts of economics. Preventable childhood illnesses and disabilities attributable to environmental factors impose staggering costs on society; plausible estimates for just a subset of these costs range up to \$1.6 billion annually in the state of Massachusetts.*

A similar economic analysis was conducted in Washington State – finding that the costs of childhood illnesses and developmental disorders attributable to environmental exposures conservatively at 1.6 - 2.2 billion US dollars a year for that state alone<sup>2</sup>. Other health economists have estimated the total national costs of the attributable fraction of four health and developmental conditions in children at \$ 55 billion a year to the US economy<sup>3</sup>.

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<sup>1</sup> Massey R. & Ackerman F.(2002) Costs of environmental illness: The price we pay for pollution. The Global Development and Environment Institute, Tufts University

<sup>2</sup> Davies Kate (2005) How much do environmental diseases and disabilities cost? Monograph, Northwest Public Health, Fall/Winter.

<sup>3</sup> Landrigan P, Schechter C, Lipton J. et al, (2002) Environmental pollutants and disease in American children: Estimates of morbidity and mortality and costs for lead poisoning, asthma, cancer and developmental disabilities. Environmental Health Perspectives 110; 721-728.

These costs could be extrapolated to account for the smaller Canadian population to around \$ 5.5 billion in increased child health and special education costs to the Canadian economy each year. Muir and Zegezac<sup>4</sup> estimated the annual costs to Canada of a loss of 5 IQ points to total income at \$30 billion annually – this is not counting other costs associated with neurodevelopmental effects that have been linked to environmental exposures, such as attention disorders.

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- Remediation of contaminated sites, as well as pollution prevention, must be an explicit and timely response specified in the Act to be actioned by the Ministers of Health and Environment.

The case of the Sydney tar ponds exemplifies the need of the Minister of Health and Public Health to act to ensure that public health is being protected. The residential community is contaminated with CEPA toxics, and there is no remedial plan in place. Canadian soil quality guidelines are not being used and have been arbitrarily increased. The approach suggests a "pollute up to the arbitrary guidelines" rather than taking remedial and restorative actions to protect and promote public health.

In cases of present or past contamination where public health is potentially affected, the Ministers of Health and Public Health must act to ensure that remedial and restorative actions are taken to protect and promote public health. Costs of remediation should be obtained from the parties responsible for the contamination.

- Flexibility in CEPA procedures is needed in terms of timely handling of new exposure information on substances that will require assessment and regulation, ie. consumer products.
- Mandatory timelines
  - ❑ Immediate action to deal with a significant danger- Ministers now have power to act, but this provision is not used as often as it should be. Barriers to its use should be identified and removed.
  - ❑ Chemical identified as Persistent (P), Bioaccumulative (B) **AND** Inherently Toxic (iT) should be placed on the CEPA Toxic list immediately and a regulation or instrument for virtual elimination\* be proposed within one year.

\*Virtual elimination should be in the context of eliminating inputs of persistent toxic chemical. CEPA should define this as the cessation of intentional production, use release, export, distribution or import. Where a substance is produced as a by-product, virtual elimination should include changes to processes, practices and substitution of material or products with safe alternatives.

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<sup>4</sup> Muir T. & Zegarac M. (2001) Societal costs of exposure to toxic substances: Environmental and health costs of four case studies that are candidates for environmental causation. Environmental Health Perspectives, 109(suppl. 6):885–903.

- Chemicals that are identified as P and iT, **OR** B and iT, the top 500 (eco) and the top 100 (health) priority substances should undergo a screening assessment within 2 years. For those deemed CEPA Toxic a Management Plan should be developed in one year, with two further years as the limit for implementation of this Plan.
- While these Plans are being developed, emitters should take early voluntary actions to reduce and prevent risks.

There should be a defined process in the Act whereby the duty to take timely action under the precautionary principle could be realized. There is a most serious concern regarding the implementation of the precautionary principle: That in order to achieve regulation, government policies require a number of strict justifications for the use of regulations that are proposed to protect human health and control environmental risks. These include several lengthy consultations, cost/benefit analysis, regulatory impact analyses, comment periods, opportunity for objections, and so on – the process itself severely restricts timely action, or action itself, on toxic substances. At best risk management takes three years. These policies, hurdles and barriers set in regulatory policy militate against ever taking a precautionary approach, or responding in a timely fashion to the duty to act that is implied in the principle.

Section 77 subsection 2 of CEPA should include a provision that allows the Ministers to act in a precautionary manner and to prescribe some mitigating actions to control exposures while proceeding to virtual elimination under Section 65 (3) or when the substance is listed on Schedule 1, and while regulations are being developed.

- Regulations must be enforced.
- Mechanisms to increase public consultation in cases of contamination, and to increase public awareness and use of the Act to protect their own health, must be specified in the Act.