Canadian Environmental Law Association
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HOUSE OF COMMONS STANDING COMMITTEE ON ENVIRONMENT AND SUSTAINABLE DEVELOPMENT - CEPA REVIEW HEARINGS
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Speaking Notes on the Regulation of Toxic Substances

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A. Introduction

The Canadian Environmental Law Association ("CELA") was established in 1970 to use existing laws to protect the environment and to advocate environmental law reforms, where necessary. CELA, an Ontario legal aid clinic, represents individuals and groups with environmental problems who cannot otherwise afford legal assistance. In this capacity, CELA has a long history of addressing the problem of toxic substances in the environment, having appeared in the courts, before administrative tribunals, and before committees of Parliament on this issue. In this latter capacity, CELA has given testimony before Parliamentary committees on the *Environmental Contaminants Act*, the *Canadian Environmental Protection Act*, and the *Canadian Environmental Protection Act, 1999*, including participating extensively in the two *CEPA*-reviews held to date (late 1990s and mid-2000s). CELA researchers regularly comment on evaluations of substances under the Chemicals Management Plan ("CMP"), and CELA lawyers regularly write on the legislative provisions of, and judicial interpretation respecting, this law in legal texts, law journals, and bar association reviews.

CELA has reviewed the testimony of witnesses who appeared before the Standing Committee in March 2016. By letter dated May 12, 2016 under separate cover to the Clerk we have provided a summary of that testimony. We can advise that we support the recommendations that were provided to you by the environmental non-government organizations that appeared before the Standing Committee on March 10, 2016 (summarized at pages 7-8 of our letter of May 12th) and, therefore we have tried to avoid repeating those observations where possible in our evidence today. We can also advise that we do not support the answers to Standing Committee questions that were provided by the chemical industry representative on that same date (summarized at pages 6-7 of our May 12th letter). CELA also has prepared as background, and provided to the Clerk, a power point presentation that provides greater detail on the regulation of existing and new chemicals under the Act. We would welcome questions from members of the Standing Committee on those documents as well as on our opening remarks.

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B. Overarching Principles

In our power point presentation we set out some of the increases in the release of toxic substances in Canada in recent years. Tables 1 and 2 to our speaking notes provide another take on the issue of the magnitude of increases in releases of toxic substances in the past few years. Given the dramatic continued increases in the release of toxic substances in Canada that we document, members of the Standing Committee must decide whether *CEPA 1999* is meeting the interests of the Canadian public in protecting human health and the environment from toxic substances. If you believe that it is then you may only feel the need to tinker at the margins of the Act during the course of this review, the first that has occurred in a decade.

However, if you conclude that the Act bears significant responsibility for failing to stem the ever-increasing levels of releases of toxic substances, including cancer-causing, reproductive, developmental, and other toxicants in the Canadian environment, and that more than tinkering will be necessary in order to meet its goals, then CELA recommends that at least the following principles should be on the radar-screen of the Standing Committee:

- Impose throughout the Act greater mandatory obligations on the government and reduce government discretion in areas like the nature and scope of information-gathering, pollution prevention, and assessment and control of toxic substances;

- Accentuate the role of the public in the Act at every stage of the process from access to information, to notice and comment, to reviews and appeals, to enforcement;

- Establish in the Act in unmistakably clear terms that the burden of proof rests with industry to establish the safety of existing or new chemicals; and

- Establish as a fundamental principle of the Act that because the law already requires application of the precautionary principle the government, in erring on the side of caution in its decision-making on the availability of chemicals in Canada, must require examination of alternatives as well as require substitution of safer substances as an integral part of that decision-making process.

C. Background

There are sound reasons why national governments in a variety of countries seek to control the manufacture, import, export, processing, distribution, use, and disposal of natural and human-produced chemicals. In Canada, one need look no further than the declaration in *CEPA 1999* for some excellent reasons. The declaration states that: "…protection of the environment is essential to the well-being of Canadians and that the primary purpose of [the] Act is to contribute to sustainable development through pollution prevention". If one examines the preamble to *CEPA 1999* one finds even more particularized goals for the Government of Canada to achieve in protecting human health and the environment from exposure to chemicals, including the need to: virtually eliminate the most persistent and bioaccumulative substances; implement the precautionary principle; recognize that the risk posed by toxic substances is of national concern

and often cannot be contained within national borders; apply the "polluter pays" principle, and; remove threats to biodiversity posed by toxic substances.

But in Canada, the distance between the ideal and the execution of laws and policies can be substantial. The problem is best illustrated by examining certain key authorities and their implementation under *CEPA 1999*.

D. Overview of CEPA 1999

CEPA 1999 is the most comprehensive federal environmental law in Canada. At its core, it is designed to identify, assess, and control substances that may pose a risk to human health and the environment. The constitutionality of its predecessor, *CEPA* (in force 1988), was upheld as a valid exercise of the criminal law power in relation to the control of toxic substances by the Supreme Court of Canada in *R.* v. *Hydro-Quebec*, [1997] 3 S.C.R. 213.

There are a number of key components to *CEPA 1999* that are pertinent to controlling toxic substances. These include information gathering, pollution prevention, and the assessment and control of such substances, corresponding to Parts 3, 4, and 5 of the Act.

1. Information-Gathering

Part 3 of the Act establishes the National Pollutant Release Inventory (NPRI), whose purpose is to compile and make publicly available a national database or inventory of the quantity of certain pollutant releases to land, water, or air by industrial sources. The Act requires that when the Minister of the Environment publishes a notice in the *Canada Gazette*, persons owning facilities meeting the requirements set out in the notice must submit specified information to the Minister by the date set out in the notice. In general, facilities with 10 or more full-time employees and manufacturing 10 tonnes or more per year of a substance listed in a schedule to the notice must report to the Minister. Currently, over 350 substances are listed in the annual notice issued by the Minister.

The legal authority for Part 3 was challenged in an action that claimed that the NPRI was unconstitutional, the Minister lacked statutory authority to operate the NPRI, or to demand information from a company and then publish it as part of the inventory. The case was dismissed on appeal by the Saskatchewan Court of Appeal in *IPSCO Inc. v. Canada (Minister of the Environment*) (2002), 287 W.A.C. 113 (Sask. C.A.) on procedural grounds with the Court of Appeal holding that only the Federal Court of Canada had jurisdiction to decide the issues.

NPRI has been instrumental in providing the government and the Canadian public with basic information about the release of substances that may pose problems to the environment and human health. However, there have been key problems with the program including:

- Until a decision of a federal court judge in 2009, the Minister had failed to require annual NPRI reporting by mining facilities of releases or transfers of pollutants to tailings impoundment and waste rock storage areas, a major gap in coverage under the program. In *Great Lakes United v. Canada (Minister of the Environment)* (2009), 42 C.E.L.R. (3d)

159 (F.C.), the Federal Court granted an application for judicial review brought by environmental groups, holding that the Minister's discretion to gather information under one section of the Act could not be used to abrogate the Minister's mandatory obligations to publish the information under other sections of the Act;

- The NPRI exempts certain types of activities from reporting requirements (e.g. oil and gas exploration and drilling, including hydraulic fracturing activities, the later exemption justified in part on the basis of the need to protect confidential business information);

- The NPRI predominantly requires the reporting of releases to the environment and off-site transfers of listed substances, not the uses of such substances. It is this limitation, among others, that caused Ontario, the province with the largest population and manufacturing base in Canada, to enact its own law, the *Toxics Reduction Act, 2009*. The Ontario law specifically addresses reporting on, and reducing the use and creation of, toxic substances because industries in the province collectively make Ontario one of the highest emitters of toxic substances in North America and the number one discharger in Canada. As the province's Environmental Commissioner has observed, the NPRI focuses on gathering and publishing information on industrial emissions, while the driving intent of the provincial law is toxics reduction;

- The NPRI does not require the reporting of certain substances because they are being phased out (e.g. PCBs), are subject to reporting requirements under other laws (e.g. pesticides), or are generated at less than 10 tonnes per year. It is particularly this last limitation that caused at least one major city in Canada (Toronto) to promulgate its own by-law, in force since 2010, requiring businesses to annually report to the City medical officer of health their release, manufacture, processing, or use of 25 priority substances above thresholds of 100 kg/year. The low threshold reporting levels are designed to capture the use and release of such substances by smaller businesses that generally are not reporting under NPRI.

2. Pollution Prevention

Part 4 of *CEPA 1999*, which has been characterized as a cornerstone of the Act, provides for the development of pollution prevention plans for substances that are designated as toxic under Part 5 of the law, contribute to air and water pollution in another country, or violate international agreements binding on Canada. The Act defines pollution prevention as the use of processes, practices, materials, products, substances, or energy that avoid or minimize the creation of pollutants and waste and reduce the overall risk to the environment or human health. However, the Minister's authority under the Act to require persons on notice to prepare and implement a pollution prevention plan has been used too infrequently and in relation to far too narrow a number of industrial sectors or companies to constitute a systematic response to the problem of increasing releases and uses of toxic substances. It is this latter reason that also contributed to Ontario recently enacting its own toxics reduction law seeking to reduce the use and creation of such substances in that province. Furthermore, the pollution prevention approach under *CEPA, 1999* has generally been focused on pollution control or abatement of releases rather than true

pollution prevention, which is material or feedstock substitution of safer chemicals, product redesign or reformulation, and changes to manufacturing processes.

3. Assessment and Control

Part 5 relies on Part 3 for information, and is a key basis for action under Part 4 of the Act. Part 5 is itself a complex regime for the scientific assessment, regulation, and management of substances determined to be toxic under the Act. A substance is considered toxic if it is entering or may enter the environment in a quantity or concentration or under conditions that (1) have or may have an immediate or long-term harmful effect on the environment or biological diversity, (2) constitute or may constitute a danger to the environment on which life depends, or (3) constitute or may constitute a danger in Canada to human life or health. Once a substance is determined to be toxic, it is placed in Schedule 1 of the Act and is then eligible for the imposition of control by regulation under Part 5 (except in emergencies), or pollution prevention planning under Part 4.

The scientific assessment process for determining that a substance is toxic, however, is extremely stringent and has been viewed by some as the true Achilles heel of the Act, as it has led to just 132 substances, or groups of substances, being listed in Schedule 1 over the last quarter century. In Canada, there are over 23,000 substances that were in Canadian commerce before *CEPA*, the predecessor law to *CEPA 1999*, came into force in 1988. These substances are on what is known as the Domestic Substances List (DSL) under *CEPA 1999*. The DSL is important in two respects. First, any substance not on the DSL must be placed on a second list known as the Non-DSL and may not be manufactured or imported into Canada unless information required by the Minister is first provided. Second, under *CEPA 1999* substances on the DSL had to be categorized as to their persistence, bioaccumulative, toxic, and exposure potential to humans and the environment within seven years after the coming into force of the Act (i.e. 2006). In short, Non-DSL substances constitute substances new to Canada, whereas DSL substances constitute “existing” substances.

a. Existing Substances

The categorization process for existing substances that took place between 1999 and 2006 was not designed to establish risks to the environment or human health, but to identify substances that would qualify for a risk assessment. By 2006, the process had identified approximately 4,300 substances out of over 23,000 as requiring further assessment to determine if they were toxic. Late that year, the federal government announced its Chemicals Management Plan (CMP), an initiative designed to evaluate all 4,300 substances by 2020. In most cases, the federal government does not intend to conduct exhaustive reviews of the data for all 4,300 substances. Instead, only a small subsection of the 4,300 substances (approximately 200) that were deemed, as a result of a priority-setting process, to present the greatest risk have been subjected to preliminary screening risk assessments, the provision of additional information by industry, and in some cases further assessment to evaluate their potential to cause harm. The remaining thousands of substances, viewed as posing only medium and low level risks, have been or will be subject to a process of rapid screening.

Categorization and the CMP under *CEPA, 1999* are felt to be a vast improvement over the practice used for evaluating substances under *CEPA* of a full-blown risk assessment for each priority substance. This had resulted in long delays and frequent criticism by auditors, Parliamentary committees, and the public. However, the new processes under *CEPA 1999* have developed their own problems at the assessment and regulatory control stages including:

- During categorization, over 250 chemicals considered persistent and bioaccumulative, but not inherently toxic to aquatic organisms, were not considered for further screening or management under the CMP process;

- Health effects assessments during categorization considered carcinogenicity, genotoxicity, reproductive toxicity, developmental toxicity, and mutagenicity, but did not explicitly require consideration of endocrine toxicity or neurotoxicity;

- Categorization largely relied on existing data. Data gaps were filled by the use of models and analogues (i.e. information from a similar but not identical chemical). Categorization made limited use of surveys to gather data from industry, did not consider breakdown products of parent chemicals, or toxicity for parent chemicals' full life cycle;

- Chemicals identified as problematic under categorization generally have not been listed in annual NPRI notices that would allow for the tracking of releases or transfers of such chemicals;

- The CMP process applied very stringent criteria for determining whether substances were persistent, bioaccumulative, or toxic. For example, substances could only be deemed persistent if their half-life in water was equal to or greater than 26 weeks. Such a criterion is excessive when compared to that under the Canada-US GLWQA (8 weeks), the European REACH program (5.7 weeks), USEPA standards (8.5 weeks), or pursuant to the Stockholm POPs Convention (8.5 weeks). If the CMP had applied these criteria, more chemicals would have been considered for further assessment under *CEPA 1999*;

- Risk management options for chemicals deemed toxic under CMP and placed in Schedule 1, generally have not focused on phasing out or eliminating such substances, or using safer alternatives;

- The CMP process, a not inexpensive undertaking, is entirely funded by the taxpayer in Canada, whereas bills in the United States that have been proposed for reforming that country's toxics law include requiring a proportion of the funding to come from the private sector that uses these chemicals.

b. New Substances

A chemical is new if it is not listed on the DSL as having been in Canadian commerce between 1984 and 1986. Such a chemical can enter the Canadian market two ways:

- Under processes set out in the *New Substance Notification Regulations*, SOR/2005-247 and 248; and
- Through being on the non-DSL.

Details of, and the limitations with respect to, both approaches are set out in greater detail in the power point presentation. The points of concern we would leave with members of the Standing Committee with respect to new substances are two-fold:

- data required under the Act and regulations are not sufficient to the task of evaluating new substances; and
- there is a lack of adequate authority under the Act with respect to the role of the public in the consideration of new substances.

c. Virtual Elimination

The Act establishes a framework for addressing substances earmarked for "virtual elimination" from the environment. However, virtual elimination is defined in the Act as the reduction in quantity or concentration of a toxic substance released to the environment below a level of quantification specified by the Ministers of Health and Environment. There is only one substance on the Virtual Elimination List. Because the Act's view and definition of virtual elimination focuses on minimizing release rather than eliminating the production and use of toxic substances, virtual elimination becomes a pollution control measure rather than an instrument of pollution prevention. The Act should be amended to bring it closer into line with the principles enshrined in the 2012 *Canada-United States Great Lakes Water Quality Agreement*; i.e. the need to manage chemicals of concern by implementing measures to achieve virtual elimination and zero discharge of these chemicals (Annex 3, Article A.2).

E. Conclusions and Recommendations

This review suggests the need for reforms to the information gathering, pollution prevention, risk assessment and risk management processes under *CEPA 1999*. Information-gathering reforms need to address exemptions of certain activities, lack of reporting on uses as opposed to releases, and high threshold-reporting limits, among other matters under both NPRI and the DSL. Risk assessment reforms need to address burden of proof issues, timelines for completing assessments, the potential for harm at lower exposures (e.g. inclusion of nanomaterials), impacts to vulnerable populations, cumulative impacts, and consideration of more health endpoints, such as endocrine disruption and neurotoxicity. Risk management reforms need to address, at a minimum, enhancing pollution prevention authority, identifying and using safer alternatives, applying the precautionary principle where data are absent or inadequate, and expanding the role of the public. Revisions to key principles and goals of *CEPA, 1999* are warranted if the objective of reducing and eliminating toxic substances in Canada is to be achieved. These, and many other reforms to *CEPA 1999*, were identified by Parliamentary and Senate committees and the public many years ago but have not been acted upon to date. Doing so would serve as a true law reform model domestically and beyond Canada's borders.

Table 1: On-site Releases of Toxic Substances in Canada 2006-2012

Release Category	Quantum of Release Increase (kg)	Release Increase by Percentage
Known or Suspected Carcinogens	173,237,112.08 to 233,165,044.21	34%
Developmental and Reproductive Toxicants	145,413, 253.23 to 185,929,929.73	27.9%
Persistent, Bioaccumulative, and Toxic Chemicals	270,366,782.12 to 333,711,769.66	23%

Source: CEC, Taking Stock

Table 2: On-site and off-site Releases of Toxic Substances in Canada 2006-2012

Release Category	Quantum of Release Increase (kg)	Release Increase by Percentage
Known or Suspected Carcinogens	181,475,444.32 to 253,130,570.62	39.5%
Developmental and Reproductive Toxicants	151,577,856.85 to 199,776,939.22	31.8%
Persistent, Bioaccumulative, and Toxic Chemicals	290,846,849.38 to 565,573,863.58	94.4%

Source: CEC, Taking Stock