# Emergency Preparedness and Toxic Substances in Canada

## Submission to the Senate Committee on National Finance

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Prepared by:
Mark S. Winfield, Ph.D.
Director of Research



**Canadian Institute for Environmental Law and Policy**
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## 1. Introduction

The Canadian Institute for Environmental Law and Policy (CIELAP) is an independant, not-for-profit environmental law and policy research and education organization, founded in 1970 as the Canadian Environmental Law Research Foundation. The Institute's work has always included a strong emphasis on toxic substances pollution prevention. Community right to know issues have been emerging as a major focus for the Institute as well.

In the past few years, Canada has seen a number of major environmental emergencies, which have resulted in the release into the environment of toxic substances and other substances of concern. These have included the July 1997 Plastimet PVC fire in Hamilton, Ontario,[1] July 1999 Hub Oil Recycling fire in Calgary, Alberta,[2] and April 2000 U.S.E. Hickson Products Ltd fire in Scarborough, Ontario.[3] In each cases significant questions were raised regarding the adequacy of the steps which had been taken to prevent such emergencies, and the measures taken in response to them.[4]

Surprisingly, despite having clear authority to deal with emergencies involving toxic chemicals, with the exception of facilities storing PCBs, the federal government has established no regulations requiring that steps be taken to prevent such events, or that there be a plan to respond if they do happen.

For its part, the Province of Ontario has established, through amendments to the Fire Code that came into force in August 1998, a requirement that facilities with more than 500 litres of flammable liquids on site, have an approved fire safety plan. However, the new provincial rules do not require that this include an inventory of the chemicals on site, or that this information be made available to the public.

## 2. USEPA Emergency Planning Requirements.

The situation in Canada is in sharp contrast to that in the United States. There, the federal government has put in place a clear set of rules regarding emergency preparedness for industrial facilities. The right of citizens to information about the amounts, location and potential effects of hazardous chemicals in their communities has been firmly established as well.

The process began in 1986 when, in the aftermath of a disastrous leak at a pesticide plant in Bophal, India that killed more than 3,000 people, the U.S. Congress enacted the Emergency Planning and Community Right to Know Act.[5] Under the

hazardous chemicals reporting provisions of the Act, facilities storing hazardous chemicals above specific thresholds must report the chemical type and storage amount to local and state emergency planning committees. The planning committees must make the hazardous chemical inventory information submitted by local facilities available to the public. The Act also created the Toxic Release Inventory which, like Canada's National Pollutant Release Inventory, requires that companies report on their releases of toxic chemicals into the air, water and land, and transfers of waste to disposal.

The U.S. emergency planning rules were further strengthened by amendments to the *Clean Air Act* adopted in 1990. These require that companies of all sizes that use any of 140 flammable or toxic substances develop risk management programs. The specific requirements for the programs include:

* a hazard assessment that details the potential effects of an accidental release; an accident history of the last five years and an evaluation of worse-case and alternative accidental releases;
* a prevention program that includes safety precautions and maintenance, monitoring and employee training measures; and
* an emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies should an accident occur.

Risk management plans, containing a summary of each facility's program are required to be made available to the public. By June 1999, more than 60,000 facilities had filed such plans. The plans can be accessed, along with information on the accident history individual facilities, and on the identities and amounts of the chemicals which they store and use, through the U.S. Environmental Protection Agency's website (www.epa.gov.9966/srmpdcd/owa/overview$:startup)

The goal of the risk management plan is to reduce chemical risk at the local level. USEPA states that this information helps local fire, policy and emergency response personnel, and is useful to citizens in understanding the chemical hazards in communities. [6]

## 3. The CEPA 1999 Emergency Planning Provisions

The U.S. experience demonstrates that it is possible to establish much stronger rules for emergency prevention and preparedness than we now have in Canada. The new *Canadian Environmental Protection Act* permits the federal Minister of the Environment to require emergency prevention and response plans from facilities that use or manufacture toxic substances.

Specifically, section 199(1) of the new CEPA permits the Minister to require any person the Minister considers appropriate to prepare and implement an emergency plan respecting the prevention of, preparedness for, and response to or recovery from an environmental emergency in respect substances on the List of Toxic Substances (TSL), or recommended by the Ministers for addition to the TSL under the Act.[1]

The Minister is permitted to specify the substance or group of substances in relation to which the plan is to be prepared, the period of time within which the plan is to be prepared and implemented, and other matters the Minister considers necessary. [7] Persons are required to declare their preparation of a plan, and its implementation to the Minister.[8] Plans are required to be kept at the location in relation to which they are prepared.[9] The Minister may also require the submission of plans or parts of plans.[10]

## 4. Environment Canada's Proposals Re: Emergency Planning Under CEPA

*Application*

Environment Canada proposes to require emergency plans for CEPA toxic substances where there is potential for an accidental release to occur, except:

* where a substance is no longer used or manufactured in Canada;
* where the management options adopted for the substance already include an emergency plan.

**Recommendation:**

1. *Emergency Plans should be required for all CEPA toxic substances, except where the substance is no longer imported, manufactured, used or stored in Canada.*

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[1] Under section 65 of CEPA 1999, Substance is considered "toxic" for the purposes of the Act if it is entering or may enter the environment in a quanitity or concentration or under conditions that: (a) have or may have an immediate or long-term harmful effect on the environment or its biological diversity; (b) constitute or may constitute a danger to the environment on which life depends; or (c) constitute or may constitute a danger to human life or health.

Environment Canada proposes to require emergency plans from the following facilities:

* all commercial, manufacturing processing or other users of identified CEPA toxic substances, who meet National Pollutant Release Inventory (NPRI) reporting criteria; and
* all other commercial, manufacturing, processing or other activities from which the Minister is satisfied that accidental release of the substance would pose an unacceptable risk to the environment or human health.

The basic approach of using NPRI reporting criteria as a trigger for emergency planning requirements, assuming the use of alternative reporting thresholds for CEPA toxic substances, as proposed in the third and fourth reports of the NPRI Ad Hoc Working Group on Substances is supported. However, the triggering criteria for emergency planning should include storage of a substance above the NPRI reporting threshold as a trigger, as a number of recent emergencies have arisen in relation to stored substances and materials.

Consideration should also be given to the establishment of planning requirements where a fire, explosion or environmental release may result in the generation and release of a CEPA toxic substance. The Plastimet PVC fire provides an example of such an incident, where a fire at a storage/recycling facility for non-CEPA toxic substances resulted in the generation and release of large quantities of a CEPA toxic substance - dioxin.

**Recommendation**

2. *Emergency plans should be required for all facilities manufacturing, processing, otherwise using or storing CEPA toxic substances above the relevant NPRI reporting thresholds for such substances.*

3. *Emergency plans should be required for facilities manufacturing, processing, otherwise using, or storing substances whose combustion or reaction with the atmosphere or water could generate and result in the release of CEPA toxic substances, particularly dioxin.*

*Plan Contents*

While facilities should be permitted to develop response plans specific to their particular circumstances, certain core elements of plans should be prescribed as

mandatory. This should include the key elements of USEPA's *Clean Air Act* Risk Management Program requirements. Specific items to be addressed should include:

**Recommendation**

4. *Emergency plans should be required to include specific detailed components, including the following:*
   - *facility information (name, address, contact information)*
   - *date of notice and date of plan preparation;*
   - *description of rationale and contents of existing plans;*
   - *use, process, manufacturing, generation or storage for each substance, including nature of activity, uses at facility, average quantities involved in manufacture, storage, distribution, transportation, handling, use, and disposal, and maximum quantity on site at any given time over the year;*
   - *description of potential on-site emergencies, including fire, explosion, leak/spill, structural failure (e.g. mine tailings storage with heavy metals) and potential effects, including worse-case scenario;*
   - *specific measures to be taken to prevent, prepare for, respond to and recover from emergencies involving toxic substance(s)*
   - *accident history involving substance of concern over past 5 years;*
   - *other measures in relation to substances of concern;*
   - *employee training and testing measures;*
   - *an emergency response program that spells out emergency health care, and employee training measures and procedures for informing the public and response agencies should an accident occur;*
   - *a summary of the facility's emergency plan made available to the public; and*
   - *provisions for reviewing and updating plan on at least an annual basis.*

*Accountability and Enforcement*

Two declarations are required in relation to plans. Environment Canada proposes that the First declaration, of the preparation of the plan, indicate basic facility data, environmental baseline information, including environmental management measures, and types of emergency planning measures chosen. The second declaration, of plan implementation, would describe the emergency measures taken.

The proposed declarations include a higher level of detail regarding planning requirements than is indicated in Environment Canada's proposals regarding the content plans. This proposed level of detail, including use and generation of substances, potential emergencies, accident histories is supported. Declarations of inclusion and implementation of specific requirements of plans is essential to the

enforceability of planning requirements. Declarations should also include information on the maximum quantities of each CEPA toxic substance stored on site annually.

**Recommendation**

5. *Declarations of preparation and implementation should include requirements for the declaration of the fulfilment of each required element of an emergency plan, as well as a statement of the maximum quantities of each CEPA toxic substance stored on site at any give time over the course of the year.*

Environment Canada makes no specific proposals regarding the use of the Minister's powers to require the submission of plans

**Recommendation**

6. *The Minister should require the submission of plans on a regular basis. This should include both random requests to ensure general compliance, and the targeting of facilities which may have a high risk of accidents, due to the nature of the substances which they use, manufacture, process or store, or past operating history.*

Environment Canada makes no proposals regarding use of enforcement officers' power to request access to emergency plans to ensure their implementation.

**Recommendation**

7. *Enforcement Officers should confirm the existence of facility emergency plans, ensure that they contain all of the required plan elements and are being implemented as per facility declarations as part of their routine inspections of facilities regulated under CEPA. Training and resources should be made available to support these activities.*

*Plan Maintenance/Renewal*

Environment Canada has made no specific proposals regarding the maintenance and updating of emergency plans.

**Recommendation**

8. *Emergency plans should be required to be updated each year and facilities required to declare their implementation of planning requirements on an annual basis. New plans should be required to be developed and submitted every five*

*years.*

## 5. General Emergency Preparedness Provisions of CEPA

In addition to the pollution prevention planning provisions related to "toxic" substances, the Part 8 of the new CEPA also includes general provisions permitting the establishment of regulations regarding emergency preparedness, prevention and response. These provisions apply to all substances, not only those declared "toxic" for the purposes of the Act. In the longer term these provisions should be used to establish an emergency preparedness system for toxic substances similar to that established in the United States, including community right to know provisions.

## 6. Conclusions

Canada's arrangements with respect to emergency planning for toxic substances are virtually non-existent. This is in sharp contrast to the situation in the United States, where under provisions of the *Emergency Preparedness and Community Right to Know Act* of 1987 and *Clean Air Act* of 1990, extensive emergency preparedness and planning requirements have been established for facilities using, storing or manufacturing toxic substances. These provisions have been accompanied by substantial requirements for communities to have access to information about facility plans, and the types of chemicals that they store, manufacture or use.

The emergency planning provisions of the new *Canadian Environmental Protection Act* provide an opportunity to establish similar requirements in Canada for toxic substances. The Institute strongly recommends the extensive use of these provisions to require that facilities develop plans to deal with emergencies involving toxic substances, and that communities have access to information about the types of chemicals stored, used or manufactured in their midst.

## Endnotes

1.J.Wilkes and K.Kipatric, "Toxic fumes for 4,000 to flee fire site," *The Toronto Star*, July 12, 1997.

2.S.Chase, "Oil-plant blasts rock Calgary," *The Globe and Mail*, August 10, 1999.

3.J.Saunder, "Chemical Blaze forces residents from homes," *The Globe and Mail*, April 10, 2000.

4.See, for example, Office of the Fire Marshal, *Protecting the Public and Environment by Improving Fire Safety at Ontario's Recycling and Waste Handling Facilities* (Toronto: Ontario Ministry of the Solicitor General and Correctional Services, August 1997).

5.Also known as Title III of the 1986 *Superfund Amendment and Reauthorization Act*.

6.*Ibid.*

7.CEPA 1999, s.199(2).

8.CEPA 1999, s.199(6) and s.58.

9.CEPA 1999, s.199(6) and s.59.

10.CEPA 1999, s.199(7).