

RESPONSE TO  
POLLUTION PREVENTION: TOWARDS A FEDERAL STRATEGY FOR ACTION  
CONSULTATION DOCUMENT

SUBMITTED TO  
ENVIRONMENT CANADA

SUBMITTED BY  
Canadian Labour Congress  
Canadian Environmental Law Association  
Canadian Institute for Environmental Law and Policy  
Centre Quebecois du Droit de L'Environnement  
Conservation Council of New Brunswick  
Environmental Coalition of Prince Edward Island  
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## 1. Introduction

Pollution prevention is one of the most important concepts to protect the Canadian environment. The concept has been continually proposed and supported by the environmental community. Most recently, support for the concept can be found in the submissions to Environment Canada on the proposed Toxic Substances Management Plan (TSMP)<sup>1</sup> and to the Standing Committee on Environment and Sustainable Development on the Parliamentary Review of the Canadian Environmental Protection Act.<sup>2</sup>

Indeed, it should be noted that the withdrawal of the environmental and labour groups from the Accelerated Reduction/Elimination of Toxics (ARET) was premised, in part, on the lack of a pollution prevention approach in that initiative. Further, environmental groups contributed to an in-depth analysis of the issue in the report of the Pollution Prevention Legislative Task Force which was released in September of 1993.<sup>3</sup>

It is for these reasons that the document, Pollution Prevention: Towards a Federal Strategy for Action<sup>4</sup> [hereinafter referred to the "proposed strategy"] released for public comment in March of 1995, was greeted with anticipation and high expectations. The purpose of this submission is to provide comments on the proposed strategy. For the sake of convenience, this submission will not repeat much of the information outlined in the previous submissions on the topic of pollution prevention. Instead, references will be made to those submissions.

## 2. Overall Position with Respect to Consultation Policy

The proposed strategy is one that will clearly move pollution prevention forward in Canada. Hence, while there are a number of improvements and clarifications that should be made, it is imperative that this document be accepted and a process put in place to implement it. The support for this document should be taken in light of recommendations that would serve to improve it and guide its implementation.

**RECOMMENDATION No. 1 - The federal initiative, Pollution Prevention: Towards a Federal Strategy for Action, should be accepted and an implementation strategy established as soon as possible.**

## 3. The Definition of Pollution Prevention

### 3.1 Support for the Basic Definition

The definition of "pollution prevention" in the proposed strategy is given as follows:

The use of processes, practices, materials, products or energy that avoid or minimize the creation of pollutants and waste; without shifting or creating new

risks to human health or the environment.

This definition deserves strong support. Its sole focus on prevention, rather than control, is laudable and necessary. In our view, this definition will have a dramatic, positive influence on the development of strategies to address polluting activities. It will promote new technological innovation, generate considerable savings for Canadian industry and provide short- and long-term benefits to the health of Canadians, the work place and the external environment.

Environmentalists have long supported definitions similar to the proposed definition. A full discussion with respect to the benefits and rationale for this definition can be found in both the report of the Pollution Prevention Legislative Task Force<sup>5</sup> and submissions to the Standing Committee on Environment and Sustainable Development for the purposes of the Canadian Environmental Protection Act review.<sup>6</sup>

There are a number of the jurisdictions that have adopted similar definitions of pollution prevention including several U.S. states.<sup>7</sup>

**RECOMMENDATION No. 2 - The definition of pollution prevention proposed in the strategy should be adopted by the government of Canada.**

### **3.2 The Issue of Out-of-Process Recycling**

One of the most controversial issue that arises with respect to the definition of pollution prevention is whether out-of-process recycling should be included as part of pollution prevention. Most advocates of pollution prevention would argue that in-process recycling and reuse (on-site closed-loop recycling) is a pollution prevention activity because substances move only inside a specific production process and never emerge as waste.

A collory to this position is that out-of-process recycling is **not** considered a pollution prevention activity. The views of the environmental and labour groups on this point are summarized in the report of the Pollution Prevention Legislative Task Force. In that report, it was stated that:

The reuse of materials or their by-products by a separate manufacturing process (even within the same plant) or through an off-site facility is not acceptable as pollution prevention. The reason is that pollution/waste is created (even if later reused as valuable raw material) and the risk to workers, consumers and the community and the environment is increased due to the need for out-of-process handling, storage, transportation and reuse. ...including out-of-process recycling in the definition of pollution prevention would allow industry to look at "add ons" to existing ways of doing business, such as recycling programs, rather than fundamentally rethinking their processes and the design of their products.<sup>8</sup>

These views are adopted for the purposes of this submission.

**RECOMMENDATION No. 3 - For the purposes of the proposed strategy, out-of-process recycling or reuse should not be considered as a legitimate pollution prevention measure and therefore should be excluded from the parameters of the definition.**

#### **4. The Environmental Protection Hierarchy**

##### **4.1 Pollution Prevention and the Hierarchy**

On page 4 of the proposed strategy, there is a section on sustainable development. Accompanying the discussion is a diagram titled: "The Environmental Protection Hierarchy." It is submitted that this diagram, if it is to be a part of the proposed strategy, is incorrect and misleading in two ways.

First, it must be clarified that the pollution prevention concept should not be considered a part of the environmental protection hierarchy. Instead, pollution prevention should be a national policy that pervades all levels of decision-making in both the public and private sectors. It is a comprehensive approach that would inform matters from technological investment to procurement.

Pollution control cannot be accepted as a long-term legitimate environmental management strategy as the use environmental control technologies are typically associated with high capital and operating costs, and are of limited environmental effectiveness. Pollution control systems often result in the transfer of environmental problems from one media to another, rather than solving them. Pollution control should be considered as an interim measure until a pollution prevention regime can be put in place. Otherwise, difficulties in reaching the top of the hierarchy (pollution prevention) will justify the continuance of the next level of the hierarchy (pollution control approach).

**RECOMMENDATION No. 4 - The Environmental Protection Hierarchy on page 4 of the proposed strategy must be redesigned. The Environmental Protection Hierarchy, if it is part of the proposed strategy, should be reconfigured to demonstrate that not only should be pollution prevention be at the top of the hierarchy, but that there be continuing effort in all respects to employ the approach. Pollution control, at best, should only be seen as an interim measure before a pollution prevention regime is implemented.**

##### **4.2 Environmental Hierarchy and Energy from Waste**

On the Environmental Protection Hierarchy, "energy recovery" is placed immediately below pollution prevention. The term is not defined in the text. However, one popular definition of

energy recovery is energy derived from incineration of solid waste or some other waste. It must be made absolutely clear that energy recovery is not one of the "3Rs" and as such, has no place whatsoever in the hierarchy. Such a hierarchy will not be supported.

There is a wealth of information that could be relied upon in opposing incineration. Two of the strongest arguments are related to the negative impacts of dioxin emissions from the facilities and the disincentive such facilities create for waste reduction and recycling programs because of the demand for waste needed to make these facilities economically viable.

It should also be noted that the recent draft U.S. Environmental Protection Agency Dioxin Reassessment Study outlines some of the devastating health and environmental effects of dioxin pollution,<sup>9</sup> and identifies incinerators as a major source of dioxin emissions in North America. Furthermore, at a recent presentation by the Center for the Biological of Natural Systems at Queens City College, it was indicated that three of four most significant sources of dioxin emissions in the Great Lakes basin are energy from waste related: hospital incinerators, municipal solid waste incinerators, and the burning of hazardous waste incinerated in cement kilns.<sup>10</sup> Incineration and energy-from-waste systems also have been identified as major sources of other serious pollutants, such as mercury.<sup>11</sup>

**RECOMMENDATION No. 5 - "Energy Recovery" be completely removed from the Environmental Protection Hierarchy on Page 4 of the proposed strategy.**

## **5. Incorporating the Strategy into Legislation**

The proposed strategy clearly states that a component of the action plan to further the strategy is the incorporation of pollution prevention into federal legislation.<sup>12</sup> We strongly support this element of the draft strategy and believe that the government of Canada should pursue it vigorously. The provision of a legislative structure for pollution prevention planning and activities would follow a trend in this regard, and in particular, at the federal and state levels in the United States.<sup>13</sup>

It is not clear in the proposed strategy, however, whether the proposed commitment is to incorporate pollution prevention into federal legislation is only with respect to activities within the federal government (i.e. federal departments, boards, agencies, and where appropriate Crown corporations), or to all areas of activity, public and private, falling under federal jurisdiction. We believe that the latter option is the one which the government must pursue.

Specifically, as has been proposed in submissions to the House of Commons Standing Committee on Environment and Sustainable Development for the purposes of the CEPA review process,<sup>14</sup> and in response to the government's proposed Toxic Substances Management Policy (TSMP)<sup>15</sup> pollution prevention plans to eliminate environmental release, including release to the occupational environment, should be required to be developed with respect to substances designated as "toxic" for the purposes of CEPA. In addition, the

manufacturing, use, and generation of substances found to be "toxic," persistent and bioaccumulative should be scheduled to be banned or phased out within appropriate time frames, except under exceptional circumstances. Finally, pollution prevention planning should be required for all workplaces covered by the *Canada Labour Code*.

**RECOMMENDATION No. 6 - Pollution prevention planning requirements should be incorporated into federal legislation, and apply to federal government departments, agencies, boards and, where appropriate, Crown corporations, and other workplaces covered by the Canada Labour Code. As an immediate next step to the proposed strategy, Environment Canada should demonstrate leadership by implementing pollution prevention activities in procurement practices and operations, and undertaking environmental audits of pollution prevention activities. The findings of the environmental audits, which will assist the work of the Environmental Commissioner, should be subject to public review.**

**RECOMMENDATION No. 7 - Federal pollution prevention legislation should require to eliminate the use and generation of substances which are persistent, bioaccumulative, and considered "toxic" for the purposes of CEPA. Pollution prevention plans should be required to be developed for all other substances considered "toxic" for the purposes of CEPA.**

**RECOMMENDATION No. 8 - In addition, the Standing Committee on Environment and Sustainable Development should incorporate a list of substances deemed toxic into CEPA and for which regulatory action is mandate. The list of substances should be developed by referring to various lists compiled including but not restricted to the U.S. Clean Air Act, the Ontario Candidate Substances List and the International Joint Commission.**

One suggestion on implementing pollution prevention is to target existing federal action plans, i.e., Fraser River, Great Lakes and St. Lawrence Vision 2000, the Atlantic Ports Rehabilitation Program, in order to incorporate pollution prevention demonstration projects in these action plans. More specifically, the various multi-stakeholder advisory committees preparing these remediation plans could be asked to identify industrial sectors or even plants within their areas as candidates for pollution prevention. Once identified, pollution prevention strategies could be applied to the candidates selected and the results, if positive, could be showcased as concrete examples that pollution prevention can work.

By going the route of public advisory committees already involved with local cleanup plans, the federal government would not be directly perceived as intervening on provincial jurisdiction.

It is clear that the environmental community has always supported pollution prevention. The problem is making it work at the grassroots level. We believe that the approach proposed here could make pollution prevention theory a reality.

**RECOMMENDATION No. 9 - To target existing federal action plans, i.e., Fraser River, Great Lakes and St. Lawrence Vision 2000, the Atlantic Ports Rehabilitation Program, in order to incorporate pollution prevention demonstration projects in these action plans. These demonstration projects can be used as concrete examples that pollution prevention can work.**

## **6. The Need for Specific Programs, Timelines and Accountability Structures**

The support for the proposed strategy cannot be given in a vacuum. While there is support for the direction of the document, there is a need, and a process for, the establishment of specific timelines and programs for pollution prevention together with lines of accountability to ensure those timelines and programs are furthered. In virtually every component of the workplan, there is a commitment to an overall program, without the necessary specificity to provide detailed comment. It is suggested that the government of Canada establish programs to further the pollution prevention framework established in the proposed strategy together with timelines for the adoption and implementation of those programs.

More specifically, reference should be made to the identification of the range of possible programs, both regulatory and non-regulatory, identified by the Pollution Prevention Legislative Task Force<sup>16</sup> and other proposals on the topic.<sup>17</sup> These programs would, in total, establish federal framework for pollution prevention. This framework would include a national policy for pollution prevention together with a series of programs.

**RECOMMENDATION No. 10 - The proposed strategy should include a process to develop specific programs to further a federal pollution prevention approach with specific timelines attached to the establishment and implementation of those programs.**

In particular, the federal government should focus its environmental technology development and environmental industry programs on the development and diffusion of pollution prevention skills and technology. Particular attention should be given to meeting the needs of small and medium sized enterprises in this area. Such firms typically lack the in-house research and development capacity and capital to develop and adopt pollution prevention technologies themselves.<sup>18</sup>

## **7. Relationship to International Programs and Responsibilities**

Canada should play a leadership role in the promotion of pollution prevention activities. This should be reflected in Canada's position in international environmental and trade negotiations, and in the provision of international development assistance through the Canadian International Development Agency. Particular focus should be placed on promoting the elimination of the use and generation of persistent toxic substances, throughout the world.



**RECOMMENDATION No. 11 - The promotion of pollution prevention, and particularly the elimination of the manufacturing, use or generation of persistent, toxic substances, should be reflected in Canada's position in international trade and environmental negotiations. The elimination of the use of such substances and the development of alternatives for use in agriculture and industry also should be promoted through the Canadian International Development Agency and the International Development Research Centre.**

## **8. Relationship with Other Federal Initiatives**

The proposed strategy has been presented at the same time that a number of other significant environmental initiatives are under way at the federal level. The relationship between the proposed strategy and these other initiatives is far from clear. In particular, the following questions arise:

(a) Has the proposed strategy been formally submitted to the Standing Committee on Environment and Sustainable Development to allow them the opportunity to include the principles in the upcoming report from the review of the Canadian Environmental Protection Act?

(b) How will the federal government's ability to implement the proposed strategy be affected by the harmonization initiative of the Canadian Council of the Ministers of the Environment (CCME)? We note that pollution prevention is one of the areas targeted for "harmonization" by the initiative. What does this mean?

(c) What is the relationship between the proposed strategy and the proposed TSMP for Canada which was released in November 1994?

**RECOMMENDATION No. 12 - The proposed strategy should be submitted to the House of Commons Standing Committee on Environment and Sustainable Development for consideration as part of its review of CEPA.**

**RECOMMENDATION No. 13 - The federal government should provide a clear statement of its goals and objectives if the "harmonization" of pollution prevention is to be pursued through the CCME harmonization initiative. The implications of the harmonization initiative, particularly in the areas of monitoring, environmental law enforcement, and standards and policy development for the federal government's ability to implement its pollution prevention strategy should be reviewed prior to the conclusion of any harmonization agreement.**

It should be noted that we regard the proposed pollution prevention strategy as a major

improvement over the proposed TSMP. In that document, the definition of "virtual elimination" is defined as "no measurable release," which by implication, invokes a pollution control approach. In response to this proposal, the Canadian Institute for the Environmental Law and Policy and the Canadian Environmental Law Association stated:

"The proposed approach, which defines the goal of Track 1 as "no measurable release" allows a pollution control response rather than a pollution prevention response. Pollution prevention is defined as approaches that avoids or prevents the use and generation of toxic substances. Its strength is that it emphasizes changes in the industrial process through such techniques as raw product substitution, process reformulation, substitution, and other such techniques.

"When the goal is defined as "no measurable release," legitimacy is given to continuing pollution control models that attempt to reduce emissions at the end-of-the-pipe. TSMP does not promote process change or other measures that avoid the use or generation of toxic chemicals. As such, TSMP reinforces present practices. It will not encourage innovation. It may lead industry to adopt more expensive, and ultimately less efficient, end-of-the-pipe measures. These investments will preempt other pollution prevention investments. In effect, these facilities will be held "hostage" to traditional pollution control technologies rather than pursuing pollution prevention strategies."<sup>19</sup>

**RECOMMENDATION No. 14 - The proposed strategy should take precedence over, and supersede, the proposed Toxic Substances Management Policy for Canada released in November 1994.**

## 9. Conclusions

We regard the release of the document Pollution Prevention: Towards a Federal Strategy for Action as an important step forward in the development of a federal environmental policy framework. We are particularly supportive of the definition of pollution prevention presented in the document, and the commitment to incorporate pollution prevention into federal legislation. However, we remain unclear as to the scope of this commitment. We believe that the federal government should employ the full extent of its jurisdictional capacity to implement the proposed strategy.

The manner in which the strategy will be implemented remains unclear. Precise directions for legislative and regulatory change have yet to be presented. Other elements of an implementation strategy also have yet to be articulated, although we look forward to their development.

While we support the overall direction of the proposed strategy, several aspects of the draft document give us cause for concern. In particular, it the proposed strategy should clearly

exclude out of process reuse or recycling from the definition of pollution prevention. In addition, "energy recovery" should be removed from any environmental protection framework or hierarchy, and the status of pollution control systems as interim measures should be emphasized.

Furthermore, the relationship between the proposed strategy and a number of other ongoing initiatives is unclear. We believe that the strategy should be presented to the House of Commons Standing Committee on Environment and Sustainable Development for consideration in its review of the CEPA, particularly, and regard the proposed strategy as a significant improvement over the contents of the November 1994 draft TSMP. This is especially true with respect to its recognition of the need to avoid and minimize the creation of pollutants, rather than manage and control them. At the same time, we are seriously concerned about the potential impact of the CCME harmonization initiative on the capacity of the federal government to implement its proposed pollution prevention strategy.<sup>20</sup>

We look forward to the next steps in this important initiative, and would be pleased to respond to any questions or comments you may have regarding our submission.

## **10. Summary of Recommendations**

To assist the federal government in revising the proposed strategy, the recommendations have been summarized below.

**RECOMMENDATION No. 1** - The federal initiative, Pollution Prevention: Towards a Federal Strategy for Action, should be accepted and an implementation strategy established as soon as possible.

**RECOMMENDATION No. 2** - The definition of pollution prevention proposed in the strategy should be adopted by the government of Canada.

**RECOMMENDATION No. 3** - For the purposes of the proposed strategy, out-of-process recycling or reuse should not be considered as a legitimate pollution prevention measure and therefore should be excluded from the parameters of the definition.

**RECOMMENDATION No. 4** - The Environmental Protection Hierarchy on page 4 of the proposed strategy must be redesigned. The Environmental Protection Hierarchy, if it is part of the proposed strategy, should be reconfigured to demonstrate that not only should be pollution prevention be at the top of the hierarchy, but that there be continuing effort in all respects to employ the approach. Pollution control, at best, should only be seen as an interim measure before a pollution prevention regime is implemented.

**RECOMMENDATION No. 5** - "Energy Recovery" be completely removed from the Environmental Protection Hierarchy on Page 4 of the proposed strategy.

**RECOMMENDATION No. 6** - Pollution prevention planning requirements should be incorporated into federal legislation, and apply to federal government departments, agencies, boards and, where appropriate, Crown corporations, and other workplaces covered by the Canada Labour Code. As an immediate next step to the proposed strategy, Environment Canada should demonstrate leadership by implementing pollution prevention activities in procurement practices and operations, and undertaking environmental audits of pollution prevention activities. The findings of the environmental audits, which will assist the work of the Environmental Commissioner, should be subject to public review.

**RECOMMENDATION No. 7** - Federal pollution prevention legislation should require to eliminate the use and generation of substances which are persistent, bioaccumulative, and considered "toxic" for the purposes of CEPA. Pollution prevention plans should be required to be developed for all other substances considered "toxic" for the purposes of CEPA.

**RECOMMENDATION No. 8** - In addition, the Standing Committee on Environment and Sustainable Development should incorporate a list of substances deemed toxic into CEPA and for which regulatory action is mandate. The list of substances should be developed by referring to various lists compiled including but not restricted to the U.S. Clean Air Act, the Ontario Candidate Substances List and the International Joint Commission.

**RECOMMENDATION No. 9** - To target existing federal action plans, i.e., Fraser River, Great Lakes and St. Lawrence Vision 2000, the Atlantic Ports Rehabilitation Program, in order to incorporate pollution prevention demonstration projects in these action plans. These demonstration projects can be used as concrete examples that pollution prevention can work.

**RECOMMENDATION No. 10** - The proposed strategy should include a process to develop specific programs to further a federal pollution prevention approach with specific timelines attached to the establishment and implementation of those programs.

**RECOMMENDATION No. 11** - The promotion of pollution prevention, and particularly the elimination of the manufacturing, use or generation of persistent, toxic substances, should be reflected in Canada's position in international trade and environmental negotiations. The elimination of the use of such substances and the development of alternatives for use in agriculture and industry also should be promoted through the Canadian International Development Agency and the International Development Research Centre.

**RECOMMENDATION No. 12** - The proposed strategy should be submitted to the House of Commons Standing Committee on Environment and Sustainable Development for consideration as part of its review of CEPA.

**RECOMMENDATION No. 13** - The federal government should provide a clear statement of its goals and objectives if the "harmonization" of pollution prevention is to be pursued through the CCME harmonization initiative. The implications of the harmonization initiative, particularly in the areas of monitoring, environmental law enforcement, and standards and

policy development for the federal government's ability to implement its pollution prevention strategy should be reviewed prior to the conclusion of any harmonization agreement.

**RECOMMENDATION No. 14** - The proposed strategy should take precedence over, and supersede, the proposed Toxic Substances Management Policy for Canada released in November 1994.

## ENDNOTES

1. Canadian Institute for Environmental Law and Policy and the Canadian Environmental Law Association, A Response to the Proposed Toxic Substances Management Policy for Canada (November, 1994) [hereinafter referred to as A Response to the Proposed TSMP].
2. See: Reforming the Canadian Environmental Protection Act, A Submission to the Standing Committee on Environment and Sustainable Development, Edited by B. Mausberg, P. Muldoon and W. Winfield (September, 1994).
3. Pollution Prevention Legislative Task Force, Final Report (Sponsored by Environment Canada, September, 1993). [Hereinafter referred to as the Pollution Prevention Task Force Report].
4. Government of Canada, Pollution Prevention: Towards a Federal Strategy for Action Consultation Document, March 1994. [Hereinafter referred to as Pollution Prevention: Towards a Federal Strategy for Action].
5. Pollution Prevention Legislative Task Force, p. 14.
6. See: Reforming the Canadian Environmental Protection Act, A Submission to the Standing Committee on Environment and Sustainable Development, Edited by B. Mausberg, P. Muldoon and W. Winfield (September, 1994).
7. For example, see: P. Muldoon, "Incorporating Pollution Prevention into Part II of CEPA: An Agenda for Reform", (September, 1994).
8. Pollution Prevention Legislative Task Force, p. 21.
9. Presentation by Linda Birnbaum, Director of Environmental Toxicological Division, U.S. Environmental Protection Agency, on "Re-evaluation of Dioxin" at the Great Lakes Water Quality Board 102nd Meeting, Chicago, IL, July 15, 1993.
10. Presentation by Barry Commoner on March 30, 1995, Ann Arbor, Michigan, titled: "Quantitative Estimation of the Entry of Dioxins, Furans and Hexachlorobenzene into the Great Lakes from Airborne and Waterborne Sources."
11. Pollution Probe, Mercury Elimination and Reduction Challenge Project (Draft), written by Susan Sang and Bruce Lourie, (April, 1995).
12. Pollution Prevention: Towards a Federal Strategy for Action, p. 7.

13. For a review of regulatory and non-regulatory programs in the U.S., see: United States General Accounting Office, Pollution Prevention: EPA Should Reexamine Objectives and Sustainability of State Programs (January, 1994).
14. See: Reforming the Canadian Environmental Protection Act, A Submission to the Standing Committee on Environment and Sustainable Development, Edited by B. Mausberg, P. Muldoon and W. Winfield (September, 1994).
15. A Response to the Proposed Toxic Substances Management Policy for Canada, p. 4.
16. Pollution Prevention Legislative Task Force, section 5.3.
17. For example, see: Canadian Environmental Law Association, Incorporating Pollution Prevention into Part II of CEPA: An Agenda for Reform (September, 1994); Paul Muldoon, "Toward a National Pollution Prevention Strategy: Principles for Reform" in Canadian Bar Association Committee on Sustainable Development, Sustainable Development in Canada: Options for Law Reform (Ottawa, 1990).
18. See: M. Winfield, J. Rabantik, Putting the Environment into Environmental Industry Strategies: The Role of Environmental Industries in Restructuring of Sustainability (May, 1995).
19. A Response to the Proposed Toxic Substances Management Policy for Canada, p. 4.
20. See: The Draft Environmental Management Framework Agreement And Schedules: A Commentary and Analysis, prepared Shelly Kaufman, Paul Muldoon and Mark Winfield (March 1995).