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CANADA

THE CANADIAN ENVIRONMENTAL PROTECTION ACT, 1999 – FIVE-YEAR REVIEW: CLOSING THE GAPS

Report of the Standing Committee on Environment and Sustainable Development

Bob Mills, MP
Chair

APRIL 2007

39th PARLIAMENT, 1st SESSION

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THE STANDING COMMITTEE ON ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

has the honour to present its

FIFTH REPORT

Pursuant to its mandate under Standing Order 108(2), and section 343 of the Canadian Environmental Protection Act, 1999, the Committee has studied the statutory review of the Act.

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THE *CANADIAN ENVIRONMENTAL PROTECTION ACT*, 1999 — FIVE-YEAR REVIEW: CLOSING THE GAPS

PROLOGUE: THE STORY OF O_3, A PRECAUTIONARY TALE

> There was a need to find a new chemical to replace the ammonia. The chlorofluorocarbons were great because they were chemically very unreactive. You could put them into a refrigerator and compress them, and when they expanded, they sucked the heat out of the fridge. Everyone thought that this was great.
>
> Nobody at that time could ever have imagined that these chemicals could eventually have an impact on the ozone layer in the stratosphere. And how could they? Why would anyone have ever thought of that? There wasn't any knowledge about ozone destruction. It just wouldn't have come up. You had a problem that you wanted to solve, which was the problem of refrigeration. It was a tremendous breakthrough. It saved thousands of lives by introducing the freons instead of ammonia.
>
> Dr. Joe Schwarcz
> Director, Office for Science and Society, McGill University
> Evidence, 21 June 2006

The above testimony regarding the history of CFCs and stratospheric ozone serves to highlight a number of points about chemical management. The first is that chemicals are extremely useful. Refrigeration is one of the greatest public health breakthroughs. It was brought about by knowledge of the effects of compressing and expanding gases, originally ammonia. But ammonia is highly toxic and was responsible for many deaths.

Chemists and engineers therefore searched for a solution and found it in CFCs. It barely needs mentioning that this was done with the very best of intentions. These chemicals solved the problem of ammonia toxicity, but, unbeknown to the scientists, caused another problem: the degradation of the stratospheric ozone layer. There was no base of knowledge from which chemists could have predicted that CFCs would react in the upper atmosphere with ozone. As monitoring and atmospheric chemistry became more powerful tools, ozone depletion was discovered, and the world reacted with one of the most successful international treaties, the Montreal Protocol.

If that were the complete story, one might feel comfortable with our abilities to solve problems as they arise. But it is not.

In 1995, Paul Crutzen won the Nobel Prize in chemistry. The following passage is from his Nobel lecture.

> This brings up the nightmarish thought that if the chemical industry had developed organobromine compounds instead of the CFCs — or alternatively, if chlorine chemistry would have run more like that of bromine — then without any preparedness, we would have been faced with a catastrophic ozone hole everywhere and at all seasons during the 1970s, probably before the atmospheric chemists had developed the necessary knowledge to identify the problem and the appropriate techniques for the necessary critical measurements. Noting that nobody had given any thought to the atmospheric consequences of the release of Cl or Br before 1974, I can only conclude that mankind has been extremely lucky, that Cl activation can only occur under very special circumstances. This shows that we should always be on our guard for the potential consequences of the release of new products into the environment.
>
> Paul Crutzen
> My Life With O_3, NOx And Other YZOx S
> Nobel Lecture, 8 December 1995

In the case of stratospheric ozone, humans got lucky. If organobromine compounds had been chosen instead of chlorine based compounds, ultraviolet radiation would likely have bathed the globe throughout the 1970s. There would not have been time for knowledge from monitoring and atmospheric chemistry to help resolve the problem.

So this is a tale of precaution. We must accept that there will always be some level of risk and that decisions may have to be made in the knowledge that there will likely always be unknowns. However, though the risks may not be clear, the stakes can be very high.

The lesson here is that our system of chemical risk management is only as strong as the foundation of knowledge upon which it is built. We must always be aware that our knowledge base may not be complete, attempt to fill the gaps and act with appropriate caution.

INTRODUCTION

SCOPING THE STUDY

The House of Commons Standing Committee on Environment and Sustainable Development (the Committee) was given its order of reference for the review of the provisions and operation of the *Canadian Environmental Protection Act 1999* (CEPA 1999) on April 25, 2006 and it began its study on May 10 of that year.

CEPA 1999 is a large and complex act that has been in force for only 6 years. As such, the Committee began its study with three meetings designed to help it focus its examination. The topics and issues that it decided to study are listed in an Appendix to this report. There are many aspects, therefore, that the Committee did not examine in detail, in

particular Parts 6 to 9 of the Act (including all 8 Divisions of Part 7).[1] Though the Committee set out the scope of its study, it did not prevent witnesses from bringing up other issues from time to time, though not all representations are discussed in this report.[2]

It was clear from the brief scoping exercise that Part 5 of the Act, Controlling Toxic Substances, was, as one departmental official called it, "a crucial part of the Act."[3] It contains the sections of the Act that outline how a substance is assessed for its toxicity, as defined in the Act, as well as the regulatory authorities to manage them once assessed. It was also apparent that this Part of the Act was the focus of the greatest amount of concern from all stakeholders.

Most of the study, therefore, was spent examining Part 5 and its implementation. Other issues also received significant attention, most notably aspects of: Part 1, Administration; Part 2, Public Participation; Part 3, Information Gathering, Objectives, Guidelines and Codes of Practice; Part 4, Pollution Prevention; to some extent Part 10, Enforcement; and, Part 11 Miscellaneous Matters.

PROCEDURE

The study proceeded, as much as practicable, in a roundtable format whereby various stakeholders with potentially differing points of view were invited to discuss particular issues. The topics to be discussed were posted on the Committee website so that those interested in appearing or submitting briefs on specific topics could do so and prepare ahead of time, though the actual dates could not be determined far in advance. The format generally worked well, as the interaction of ideas allowed for rapid focusing on problems and where possible on common ground and solutions.

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1 Part 6: Animate Products of Biotechnology

Part 7: Controlling Pollution and Managing Wastes

Part 8: Environmental Matters Related to Emergencies

Part 9: Government Operations and Federal and Aboriginal Lands

2 Representations may not have been included, for example, if they were outside of the scope of the study, or if they repeated a point of view already made. Testimonies cited were chosen to represent the proceedings as best as possible and to support the recommendations the Committee felt were needed.

3 Mrs. Cécile Cléroux, Assistant Deputy Minister, Environment Stewardship Branch, Department of the Environment, Evidence, 15 May 2006

INTRODUCTORY OBSERVATIONS

TO OVERHAUL THE ACT OR NOT?

When asked if CEPA 1999 was a success, one environmental group's response was "For us, and for our asthmatics, our learning disabled, our cancer victims, the answer is no."[4] It was also pointed out by the same group that, by their estimation, pollution emissions were increasing and on the whole worse, on a per facility basis, than those in the United States, particularly around the Great Lakes Basin.

If this is the case, (see discussion on monitoring and reporting for further discussion) the question becomes, in the context of this review, what is the cause and is CEPA 1999 and/or its implementation part of the problem? While a definitive answer is not clear, it does not seem to be CEPA 1999 itself that is the problem.

The consensus was that the Act is comprehensive but contains many useful powers that have yet to be explored. As one witness quipped, "The act itself is quite a fine piece of legislation. That reminds me of the story about your kid has great manners; they've never been used."[5]

With very few exceptions witnesses generally agreed with the principle of this statement. CEPA underwent an exhaustive overhaul from its 1988 version after a lengthy and detailed review. The result was a statute five times longer than the original including authorities that the federal government had never previously had, some of which were also, according to the Departments of Environment and Health, unique in the world. It incorporated many relatively new concepts, such as sustainable development and the precautionary principle which had yet to be applied to chemicals management.

Given this, and the relatively short time since its coming into force, it is not surprising that a departmental official stated that "we completely recognize that we're still on a learning curve."[6] Others went further:

> The act is not fully implemented. There are sections or areas that are yet to be interpreted. Even those that have been interpreted and applied haven't been tested. There may be one or two examples, or the outcomes are still not clear. So it's very difficult to say what is working well, what isn't working well, and whether any shortcomings flow out of the legislative structure or flow out of the implementation.[7]

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4 Dr. Kapil Khatter, Director, Health and Environment, Pollution Watch, Evidence, May 10, 2006

5 Mr. Bruce Lourie, President, Ivey Foundation (Toronto), Evidence, June 5, 2006

6 Mr. John Moffet, Acting Director General, Systems and Priorities, Department of the Environment, Evidence, May 15, 2006

7 Ms. Justyna Laurie-Lean (Vice-President, Mining Association of Canada), Evidence, May 17, 2006

As a result, the Committee is convinced that another drastic overhaul of CEPA is not only unnecessary, but could well be counterproductive. Introducing another set of learning curves to those that have yet to be completed would draw resources from all stakeholders and could stall progress on improving environmental and health protection. As was stated in testimony, "there's a price to be paid for even good change."[8]

A key problem identified in the lack of implementation of CEPA 1999, was the lack of funds. There are a few statutory obligations place on the government by CEPA 1999, including the categorization of the Domestic Substance List and a maximum 90 day assessment period for new substances after which they would automatically be available. These two obligations have apparently used considerable resources, leaving little for exploring imaginative and effective uses for CEPA 1999's other, non-obligatory authorities, a fact alluded to an a number of occasions by witnesses and departmental officials.

This does not mean, however, that it was not possible to identify improvements to the Act. This report concentrates on improving knowledge and implementation, but various important changes to the Act are also recommended.

FLAGSHIP OR SAFETY NET?

CEPA 1999 has been described as "one of the government of Canada's primary tools for achieving sustainable development and pollution prevention."[9] Others called it the "backbone of Canadian environmental legislation."[10]

Given that many authorities under CEPA 1999 have rarely, if ever, been used, it is not clear to the Committee exactly what the government believes is the appropriate role for CEPA 1999. For instance, CEPA 1999 gives the government the authority to: make regulations controlling products containing toxic substances (never used); make interim orders regarding potentially dangerous substances (never used); require pollution prevention plans of industry (there have been seven notices requiring P2 plans); virtually eliminate persistent bioaccumulative and inherently toxic substances (only one, already not in commerce, added to the Virtual Elimination List); and, request information on substances the Minister suspects are, or could become, toxic (only limited use).

Presumably, if it is indeed the (not just a) primary tool, then the government would have appropriated the funds necessary for the authorities that CEPA 1999 to be explored more comprehensively. Others also pointed explicitly to the need to identify the role of CEPA 1999:

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8 Ibid.

9 Government of Canada, "CEPA 1999: Focus on Issues", accessed January 15 http://www.ec.gc.ca/CEPARegistry/gene_info/focus.cfm

10 Dr. Kapil Khatter (Director, Health and Environment, Pollution Watch), Evidence, 10 May 2006

> In terms of our experience, one thing we note is that there does not seem to be a shared view among everyone about what is the role of CEPA. Some perceive it as a safety net. That expression has been used quite a lot. Others see it as a foundation that supports other legislation across jurisdictions, or as an overarching national legislation.[11]

The Committee is of the opinion that CEPA 1999 is not just one of the government of Canada's primary tools for achieving pollution prevention, but it is *the* primary tool and it should be implemented and communicated as such.

That is not to say that it should trump other pieces of legislation. There are many other important Acts, such as the newly in force (June 28, 2006) *Pest Control Products Act* and the *Food and Drugs Act* that also play important roles in pollution prevention along with other less important ones such as the *Hazardous Products Act*.

All of these Acts form a type of legislative safety net within federal jurisdiction to protect the public and the environment from pollution in products as well as emissions and effluents. But CEPA 1999 should at least set the bar that these other Acts must meet and in some cases it could more efficiently play the role that others currently have. Any gaps in the safety net must be filled.

THE OBJECTIVES OF CEPA 1999

The Department presented a view of the Act that highlighted three objectives:

- Contribute to sustainable development by *preventing pollution*;
- *Promote coordinated action* across Canada to achieve highest environmental quality for [the] *health of all Canadians*; and,
- Manage risks from harmful substances; virtually eliminate releases of the most dangerous chemical.[12]

Since, according to some witnesses, emissions of pollutants are increasing rather than decreasing, there is but one provincial equivalency agreement[13], and the virtual elimination provisions have yet to be implemented, even a cursory examination would suggest that at least some of the basic objectives of the Act are simply not being met. The

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11 Ms. Justyna Laurie-Lean (Vice-President, Mining Association of Canada), Evidence, May 17, 2006

12 Government of Canada, "*Canadian Environmental Protection Act*, 1999, What it is, what it does, how it works," May 2006, submission to the House of Commons Standing Committee on Environment and Sustainable Development, emphasis in original

13 Equivalency Agreements are designed to avoid duplication and increase federal/provincial cooperation by allowing for federal regulations to be waived in a province if equivalent regulations exist there. An Agreement on the Equivalency of Federal and Alberta Regulations for the Control of Toxic Substances in Alberta was signed in 1994 under the previous version of CEPA.

rest of this report is about the specific issues that arose and were discussed, and how CEPA 1999 and its implementation can be improved so that these objectives are better met.

KNOWLEDGE

Whatever CEPA 1999's role is, it is clear that fundamentally the Act is about knowledge including:

- The quality and nature of it;
- Making decisions knowing that it is, and perhaps always will be, incomplete;
- Sharing it;
- Filling gaps in it; and,
- Monitoring and reporting it.

MONITORING AND REPORTING

The government does not have a monopoly on knowledge, but it should be a comprehensive source that people can trust. There is a lot of misinformation or incomplete information in the public domain that can be misinterpreted. In the context of toxic substances, the dangers of this are that people may live in a state of unnecessary fear, and this can lead to exploitation and "quackery." But more generally, monitoring and reporting are essential to the decision-making process.

> Yet how can we make decisions, and how can we judge whether the act is working and what more we need if we don't have any information or good enough information for us and the public on whether the state of the environment is improving, where it is not improving, what needs to be done?[14]

[14] Ms. Justyna Laurie-Lean, Vice-President, Mining Association of Canada, Evidence, May 17, 2006

State of the Environment Reporting

CEPA 1999 itself mandates the Minister of the Environment to:

> Publish, arrange for the publication of or distribution through an information clearing-house
>
> (i) information respecting pollution prevention,
>
> (ii) pertinent information in respect of all aspects of environmental quality; and,
>
> (iii) a periodic report on the state of the Canadian environment.

The Committee was quite dismayed to learn that, perhaps because its priorities are elsewhere, the government has virtually abandoned the role of monitoring and reporting, and communicating in a comprehensive way, information on pollution and environmental and human health. In 1991 and 1996, the government produced large volume publications on the state of Canada's environment. Since then reports have become more regional and ad hoc, and other valuable efforts such as the Canadian Information System on the Environment are seemingly moribund. Departmental officials admitted they have a lot of work to do when it comes to reporting:

> One of the things the department is not very good at, frankly, is we collect a lot of data and we're not very good at disseminating it and explaining it.[15]

The large volume reports were useful and all stakeholders called on the government to do a better job reporting on the state of the Canadian environment. The goals for both the 1991 and 1996 reports were to provide timely, accurate, and accessible environmental information, integrated with socioeconomic factors, to improve decision-making and support progress towards sustainability. They should be reinstated in manner suitable to today's technology that gives access to the data as well as analysis.

Recommendation 1

That the government publish biennially, in electronic and hard copy formats, a comprehensive state of the environment report to provide timely, accurate and accessible environmental information, integrated with socioeconomic factors, to improve decision-making and support progress towards sustainability.

[15] John Moffet, Evidence, June 12, 2006

Communicating complex knowledge is not easy and, as was pointed out, it is a virtual sub-discipline of science requiring specialized training. Taking on this role requires great care, particularly when it comes to communicating knowledge about the effects of chemicals on people's health. This point was emphasized in testimony:

> I think that as CEPA is implemented, one of the features has to be to communicate to the public just what this is all about. It takes a lot of thought to know just what kind of language to use in order to give the appropriate level of comfort to the public. It has to be such that you communicate to the public that things are being done. But no matter what, there are inherent risks. We do not live in a world where you can ever guarantee that things are risk free.[16]

The quality of reporting and assessments will depend on the quantity, quality and type of information being collected. Currently there are many gaps in the knowledge base regarding the toxicity of chemicals and Canadians exposure to them. For example, exposure assessments are limited as result of the lack biomonitoring studies and because the National Pollution Release Inventory is incomplete and not amenable to analysis. The quality of assessments, of the impact of releases of toxic substances and exposure to them on human and environmental health, is limited because of a lack of information regarding the effects of complex mixtures of chemicals and long-term chronic effects.

Closing these gaps will help Canadians to better understand the risks posed by chemicals. In addition, this would help reduce uncertainty and strengthen the knowledge base for the risk assessment process.

INFORMATION GATHERING ON SUBSTANCES

Risk Assessment, Safety and Burden of Proof

The term "burden of proof" is somewhat of a misnomer. For example, one recommendation was that "the burden of demonstrating safety should be with those wishing to introduce new chemicals or re-introduce banned chemicals."[17]

A literal interpretation of this statement might lead to somewhat perverse interpretations. First, absolute safety, in effect proving a negative, can never be demonstrated, and second it might seem a little like "putting the fox in charge of the hen house" to give industry the power to demonstrate safety. This of course cannot be what is meant. There are a number of ways of interpreting the "burden of proof" concept that distributes the burden (variously referred to as onus or responsibility) of the assessment process in different ways between the authorities and industry.

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16 Dr. Joe Schwarcz, Director, Office for Science and Society, McGill University, Evidence, December 12, 2006

17 PollutionWatch brief, Consolidated Recommendations for the Review of CEPA, December 12, 2006

With respect to new substances or uses under CEPA 1999, the Ministers currently require industry to submit information on substances as defined in the regulations. Subsequently, the Ministers must assess the information to determine if the substance is toxic or capable of becoming toxic under the Act. Thus the onus is on industry to supply the information, and on the authorities to determine if the substance is toxic or capable of becoming toxic.

Since the term "toxic" is defined[18] in the Act by a full risk assessment including both hazard and exposure, the Ministers are essentially tasked with determining a level of unacceptable risk. In the words of the Act, they must determine if the substance is, or *may* be, harmful or dangerous to human health or the environment.

Decisions are therefore based on how much and what kind of information is required and the height of the relatively subjective bar that the government sets that defines an unacceptable risk.

There was a recommendation that the burden of proof should be on industry to demonstrate the safety of substances. In reality, this is to some extent the flip side of the same coin to what is happening now. In this case, the Ministers would have to decide if industry has sufficiently demonstrated that the risks are acceptable. In either case, the Ministers would have to establish an acceptable level of risk.

The European Union's recently approved (but not yet in force) "Registration, Evaluation and Authorisation of Chemicals" (REACH),[19] was brought up as an example of "reversing the burden of proof." REACH would put the responsibility on industry to perform tests, assess the risks and establish a management strategy for substances. It "is based on the principle that industry should manufacture, import or use substances or place them on the market with such responsibility and care as may be required to ensure that, under reasonably foreseeable conditions, human health and the environment are not adversely affected."[20]

In effect, a dossier of required information, assessment and risk management strategies will have to be submitted to authorities for the authorities to approve a registration. Authorities may perform a greater role for substances of more concern. There is also a suggestion that, as a result of REACH, enforcement measures will have to be increased.

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[18] S. 64: a substance is toxic if it is entering or may enter the environment in a quantity 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 in Canada to human life or health.

[19] Regulation (Ec) No 1907/2006 of the European Parliament and of the Council of December 18, 2006, http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2006:396:SOM:EN:HTML, accessed February 28, 2007

[20] Ibid., paragraph 16

In Canada, changes to the *Pest Control Product Act* that came into force in June 2006 refer to the “burden of persuasion” (s 7. (6)).

> During an evaluation,
>
> (*a*) the applicant has the burden of persuading the Minister that the health and environmental risks and the value of the pest control product are acceptable;

The Pest Management Regulatory Agency (PMRA) interprets this as meaning that the applicant must provide the required information and has the onus of proof as to the acceptability of the pesticide's risks and value. In practice it means that an applicant must supply information and the PMRA is tasked with evaluating the information (in this case for health or environmental risks or the value of the product).

One suggestion was to apply this wording to CEPA 1999. The way in which this wording is being implemented by the PMRA is a similar distribution of onus that occurs for new substances under CEPA 1999. As such, the role of the Ministers in CEPA 1999 would remain to assess information supplied by industry and establish a level of risk that is acceptable. Addition of the PCPA wording regarding burden of persuasion would therefore only clarify what is essentially already happening.

For existing substances, however, the government has, until now, had the responsibility of identifying each substance of concern from amongst the 23 000 substances on the Domestic Substance List (DSL). Thus the onus has been on government to collect and analyse the data to show toxicity. It has done this through the Priority Substance List (PSL) process and through examination of international decisions. The PSL in particular has been a very slow and onerous route.

The government was also obliged within seven years to categorize substances on the DSL as to their potential for human exposure, and whether or not they are persistent (P), bioaccumulative (B) and inherently toxic (iT, together referred to as PBiT). This process was completed in September of 2006. Approximately 4 000 substances were identified as priorities.

The response, in December 2006, was to publish 200 high priority substances that would be added to Schedule 1 of the Act unless industry provides more information (see section on Timelines below). The information being requested, at least for the first batch of chemicals, relates to quantities and uses, and not to toxicity. The evaluation of the further information, if provided, will determine the response. They may be added to Schedule 1, the Priority Substances List or excluded from further action (s. 77 (2)).

For these 200 highest priority substances then, industry will essentially have to submit information that will persuade the government that the substances are safe or need more study, or else the substances will be added to Schedule 1 and further subjected to virtual elimination if they are PBiT.

The principle that industry should have the responsibility to persuade the government of the safety (in essence the acceptable risk) of substances, existing and new, is a good one and should therefore be written into the Act. It may not practically change the procedure for new substances, but it would place greater emphasis on safety and would guide further action on the remaining DSL substances. In particular, it would encourage the government to require information from industry on existing substances. Requests for information should not be restricted to quantities and uses, but should also include further toxicity tests if necessary.

The processes for assessing new and existing substances are different. Applying this concept to assessing substances under CEPA 1999 would therefore best be achieved by making it a principle of Part 5, leaving flexibility as to how it is implemented.

Recommendation 2

That the government amend Part 5 of CEPA 1999 to state that a guiding principle in controlling toxic substances is that industry has the responsibility of demonstrating, to the satisfaction of the Minister, that the risks of new and existing substances of concern are acceptable.

Information Regarding the Domestic Substances List

There were approximately 4 000 of 23 000 existing substances that were identified as priorities because they were persistent, or bioaccumulative and inherently toxic, or they posed a risk because of the extent of exposure to humans. Initially, 200 PBiT and high-exposure substances were identified as the highest priorities. There remain roughly 3 800 substances that were identified as substances of concern, 150 of which are essentially no longer in commerce and that will be treated as new substances.

There may, however, be many other persistent, or bioaccumulative or inherently toxic substances that may be of concern within the 19 000 remaining chemicals. These cannot be identified as “safe” simply because they were not identified in the DSL categorization.

> And when we talk about reversing the burden of proof, it's important that we eventually have data on those substances to show that they are actually safe, because some of those substances that are in those 19 000 have skull and crossbones on them when they're in a container. They simply didn't happen to meet the specific criteria of categorization.
>
> We need to continue to regard all the substances with some scepticism until we have enough evidence to show that they are safe.[21]

The evaluation of the remaining substances on the DSL will also have to take place in a prioritized fashion. While persistence remains an important aspect, it is also important to recognize that some substances are present in potentially harmful concentrations, not because they break down slowly in the environment, but because there is a continuous supply of them into the environment.

> CEPA needs to consider that some pollutants arise from substances that are in use on a continual basis, high production volume chemicals, such as personal care products and pharmaceuticals. These are continually re-introduced into the environment, and as a consequence the supply continues to be replenished. Therefore the persistence is virtual and the notion of persistence needs to be revisited in the act.[22]

Recommendation 3

That Environment Canada , in assessing chemicals on the DSL as well as any others yet to undergo an environmental assessment, recognize that chemicals may be persistently present because of their continuous release into the environment.

While the government must out of necessity prioritize the DSL results for further assessment, it must not close the door on requiring further information on the chemicals not identified in the categorization. In order to give meaning to the principle that a greater onus should be placed on industry, the government must be given freer hand to collect the data it needs.

Updating Data

One of the major problems with respect to the categorization of the domestic substance list was that the process was dependent on 20-year old data regarding manufacture, import and use of substances. Gaps in information led to a great number of substances being classified as uncertain or not classified at all.[23]

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21 Dr. Kapil Khatter (Director, Health and Environment, PollutionWatch), September 21, 2006
22 Dr. Gail Krantzberg (McMaster University, As an Individual), Evidence, December 12, 2006
23 Dr. Richard Denison, Senior Scientist, Washington, D.C. Office, Environmental Defense (USA), October 19, 2006

Recommendation 4

That the government amend CEPA 1999 to ensure that information regarding manufacture, import and use of substances is updated on a yearly basis.

Information Request Notices

In order to increase the quality and quantity of information on the possible toxic properties of substances, the government should be given a freer hand to demand information. Currently, as a result of s. 72, the Minister can demand information under s. 71 only if he/she has reason to believe that the substance is toxic or capable of becoming toxic. Thus it is not clear if s. 71 could be used to request information on all substances that might be of concern. Section 46 can also be used for gathering information on substances on the Priority Substance List or that have not been deemed toxic as a result of current low exposure rates.

Recommendation 5

That the government amend s. 72 and s. 46 of CEPA 1999 in order that it may obtain information on any substances of concern so that decisions regarding substances are made on the most comprehensive data set possible.

Sharing Data

The task of information gathering is enormous. Many other countries are going through similar processes. In particular the European Union is about to implement its Registration, Evaluation and Authorisation of Chemicals (REACH) program where over 30 000 substances will need to be registered. While this program may be cumbersome, as some particularly in the chemical sector believe, it will no doubt generate a lot of data on existing substances.

Canada must do its best to obtain as much of this data as possible. According to some testimony, there are already sections of CEPA 1999 (s. 316) and REACH (cited as the Canada clause[24]) that can be used to negotiate access to confidential information. This should be pursued with vigour. In addition, companies that must submit data to REACH regarding substances that are imported into Canada should be required to submit this data to Canada.

[24] Mr. Gordon Lloyd, Vice-President, Technical Affairs, Canadian Chemical Producers Association, Evidence, October 19, 2006

Recommendation 6

That, should REACH come into effect, the government immediately initiate negotiations toward an agreement to gain access to test data submitted under REACH that has been deemed confidential business information. In addition CEPA 1999 should be amended to require that information submitted to REACH on substances imported into Canada be submitted to Canadian authorities.

Other Jurisdictions' Decisions

There is currently authority under the Act (s. 75) for the Minister to cooperate with other jurisdictions (in Canada or the OECD) and that oblige him/her to review a decision of another OECD country, but only if the decision was to prohibit or substantially restrict a substance.

The Committee was told of the case of Australia whereby positive decisions of other countries could be accepted. This could be a valuable way of speeding up assessment processes and saving resources. But it must be done with care if the government chooses to take this route. Data from the assessment of a substance's hazard (inherent toxicity) should be valid for any country, but exposure levels can vary considerably. The overall risk assessment should therefore not be accepted. CEPA 1999 could give the powers to the Ministers to accept the test data from the hazard assessment of a jurisdiction from the OECD, whether from a positive or negative assessment.

Recommendation 7

That the government enter into negotiations with other OECD countries to exchange information respecting any substance of concern, and that CEPA 1999 be amended to this end if necessary.

Quality of Information and Assessments

If assessments are to be robust, the information must be of high quality and the assessment must be able to stand up to scrutiny. Using peer reviewed literature for information is paramount, as well as requiring industries that supply information to use accepted best laboratory practices. Generally, this is occurring but quality could be better assured by giving the government the power to request third party verification of data that it asks for, particularly under s. 46 and s. 71.

Recommendation 8

That the government amend CEPA 1999 to enable it to require third party verification of data provided by persons under s. 46 or s. 71 of the Act.

The quality of assessments is perhaps more difficult to quantify. There were some complaints that the process for new substances was too closed and not subject to sufficient review by people outside of the departments. Previous consultation had apparently identified the need to release to notifiers a full draft report of an assessment of a new substance or use.[25]

The departments responded by stating that the assessments do undergo a peer review, but exactly what kind of process this entails was unclear. In addition, summaries of assessments of new substances are made available to notifiers. The Committee believes that the quality of assessments would be improved if the notifiers (for new substances) and stakeholders (for existing substances) were made aware of the contents of the complete draft assessment and were given a greater chance to comment. The Canada Gazette process is a minimal requirement to ensure transparency, but not all people are aware of it. Complete draft assessments of existing substances should be published electronically on the CEPA 1999 website, and complete draft assessments of new substances should be made available to notifiers for comment. The timelines for approval of new substances may need to be extended if this process is resource intensive.

Recommendation 9

That the government release complete draft assessments of new substances to notifiers and publish electronically complete draft assessments of existing substances, so that all stakeholders have a better opportunity to respond.

Confidential Business Information

The balance between releasing information regarding the toxicity of a substance and protecting confidential business information was discussed at some length. Currently, according to testimony, the chief manner by which information can be obtained is through the *Access to Information Act*. This is a rather onerous way of obtaining information on a subject of such importance as human health and potentially toxic substances.

It was pointed out that the Strategic Approach to International Chemicals Management (SAICM), recently completed through the United Nations Environment Programme, includes a declaration (the Dubai Declaration) that states “In making information available, information on chemicals relating to the health and safety of humans and the environment should not be regarded as confidential.”[26]

While this may indeed be the case, the sentence leading up to this in the same paragraph of the Dubai Declaration of the SAICM brings back the idea of there being a balance, and the paragraph therefore remains open to interpretation:

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[25] Ms. Judith McKay, General Counsel, DuPont Canada, October 12, 2006

[26] Dubai Declaration on International Chemicals Management, paragraph 22

> We will ensure that, when information is made available, confidential commercial and industrial information and knowledge are protected in accordance with national laws or regulations or, in the absence of such laws and regulations, are protected in accordance with international provisions.[27]

Furthermore, Paragraph 21 of the Declaration states that signatory countries should facilitate public access to appropriate information. Allowing interested individuals to use the *Access to Information Act* to request information can not really be described as facilitating access to information. Any information pertaining to the health and safety of humans and the environment that would be available should be readily accessible on the CEPA 1999 registry.

CEPA 1999 does not define clearly confidential business information. The *Pest Control Products Act (PCPA)*, however, does define it, and clearly distinguishes it from confidential test data, though in both cases the *Access to Information Act (AIA)* is used as the bar against which to measure confidentiality.

The treatment of access to confidential test data under the PCPA is somewhat complicated. People may have access to, and copies of, any confidential test data that is set out in a regulation, though this regulation has yet to be promulgated. There is also a separate right, that the Minister is obliged to give, to inspect confidential test data electronically.

The right to inspect confidential test data shall be given to someone, provided that the person does not use it or enable others to use it for registering a pest control product (s. 43.(2)). While this may be the case, the PCPA also clearly states that nothing in it prevents the Minister from refusing to disclose information and test data under the AIA.

Under CEPA 1999, the Minister is obliged not to disclose any information that a person provides and requests to maintain confidential. CEPA 1999 then gives the Minister discretionary power to disclose some of this information under certain circumstances, or when s. 20 of the AIA would not prevent its disclosure.

Section 20 of the AIA ultimately governs access to confidential information in both the PCPA and CEPA 1999. In general, however, the PCPA makes access obligatory and then provides exceptions, while CEPA 1999 makes denial of access obligatory and then provides exceptions. The Committee believes that access to test data regarding human and environmental health is important, and CEPA 1999 should be rewritten to give access in a manner similar to the PCPA.

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[27] Ibid.

Recommendation 10

That the government facilitate public access to appropriate information by amending CEPA 1999 to make disclosure of confidential test data mandatory in a manner similar to the *Pest Control Product Act*.

Improving the National Pollution Release Inventory

The National Pollution Release Inventory is an important source of information regarding releases of toxic substances into the environment. It is, however, very difficult to interpret over time and geographic region (particularly internationally).

Attempts have been made by groups such as PollutionWatch to analyze the data and publish the results. One such analysis that was of concern to the Committee was that, on a per facility basis, facilities in the Great Lakes Basin reporting to the National Pollution Release Inventory emitted an average of 93% more air pollution of known or suspected carcinogens than matched facilities that reported to the United States Toxic Release Inventory in 2002.[28]

Unfortunately, though these attempts at analysis are useful at pushing the government to respond, they cannot be considered as an accurate picture of releases in Canada.

> statistical analysis of the NPRI data is a particularly challenging undertaking. There are considerable concerns about interpreting the time-series data from the NPRI in a meaningful way. The NPRI, unfortunately, does not provide a comprehensive estimate of any pollutant emission in the country.[29]

It is incumbent on the government to produce a report that tracks the data of the NPRI and that specifically discusses its limitations. The last annual report was released in 2004 regarding the 2002 NPRI data. It discusses to some degree the limitations of the NPRI and includes only limited analysis of the data.

NPRI data are essential to understanding Canadians' exposure to toxic chemicals and they should be analysed thoroughly and objectively with the results published on an annual basis. Such critical analysis should be used to strengthen the NPRI and the capacity to analyze it. To this end, cooperation between Statistics Canada and Environment Canada is essential, and the government should provide funding in order to make this possible.

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[28] Environmental Defence, *Partners in Pollution: An Assessment of Continuing Canadian and United States Contributions to Great Lakes Pollution*

[29] Mr. Robert Smith (Director, Environment Accounts and Statistics, Statistics Canada), Evidence, June 12, 2006

Recommendation 11

That the government of Canada provide sufficient funding to enable cooperation between Environment Canada and Statistics Canada to:

- **Produce and publish an annual report critically analysing the results of the NPRI data including trends where possible; and,**
- **To ensure that the quality of NPRI data collected are continually improved to better inform Canadians and help strengthen policies to prevent pollution.**

It should be noted that planned changes to the Toxic Releases Inventory of the United States have been criticized as lowering reporting requirements.[30] If these changes do take place, one of which was recently announced, Canada should not follow suit.

Biomonitoring

Nowhere is the information gap more evident than with respect to the quantities and trends in body-burden of synthetic chemicals. Biomonitoring studies, wherein blood and/or urine samples are taken to establish levels of synthetic chemicals and to monitor them over time, is particularly important in establishing policy direction as well as monitoring success in pollution prevention.

> Without a doubt, the absence in Canada of programs like systematic biomonitoring, which many other jurisdictions have, limits our ability to speak to meaningful outcomes. [31]

In the absence of such monitoring and reporting, other groups have filled the vacuum, which they themselves acknowledge is unacceptable:

> Frankly, it's bizarre that the government of the United States and governments all over Europe have tested hundreds of their citizens, and it falls to a Canadian charity to do this rather than the federal government.[32]

The Committee learned in its deliberations that Health Canada was planning a one time biomonitoring study of 5 000 Canadians. This study is a good start, but studies such as this must be on-going to establish trends in the body-burden of Canadians.

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30 See for example "AGs Back Public's Right to Know, Oppose EPA Effort to Weaken Toxics Reporting" Press Release, New York Sate Office of the Attorney General, January 13, 2006 http://www.oag.state.ny.us/press/2006/jan/jan13a_06.html

31 John Moffet, Evidence, June 12, 2006

32 Mr. Rick Smith (Executive Director, Environmental Defence, PollutionWatch), June 12, 2006

Knowing that there are chemicals in Canadians, as inevitably will be discovered, does not mean that they pose a serious health risk, but without knowing trends in body-burden it is next to impossible to make well informed policy decisions. It is important enough to make it a legislative requirement of CEPA 1999.

Recommendation 12

That CEPA 1999 be amended to oblige the Ministers to put in place a permanent biomonitoring study that is representative of the Canadian population, including vulnerable populations.

The results of such testing, as Dr. Schwarcz intimated, must be carefully interpreted and communicated to the public. While the Committee appreciates the fact that PollutionWatch performed its studies and that it admits that they are small and unscientific, it is also concerned that the general public will get the impression that there are definitive and negative health outcomes as a result of the chemicals being present.

The associated worry may have a greater impact than the chemicals themselves, leading to the exploitation of this fear through, for example the sale of "quack" cleansing technologies. That is not to diminish the importance of the fact that the chemicals are there, and it is an issue that should be addressed (and monitored).

The Committee and many witnesses were pleased to see the current government set up a website[33] devoted to chemical substance information. While it is a start, the website must be made much more comprehensive and a concerted effort must be made to provide information that is objective and neutral that will give concerned members of the public greater confidence in its reliability.

Complex Mixtures of Chemicals

As was pointed out, there are tens of thousands of chemicals in use. There is always the possibility that they could interact to produce effects that they would not produce in isolation. But it is impossible to comprehensively analyze all combination of chemicals. One concern is that mixtures of chemicals with similar actions may have a combined effect. It may be possible, therefore, to take these chemicals into account based on their potential for similar action. While attempts to do so are occurring, other Acts include explicit language directing such analysis to take place. In assessing pest control products, the *Pest Control Products Act* for instance states that:

> "the Minister shall […] consider […] cumulative effects of the pest control product and other control products that have a common mechanism of toxicity. (s. 7(7)(b)(iii))

[33] http://www.chemicalsubstanceschimiques.gc.ca/en/index.html

It will never be possible to look at all combinations of chemicals and as was pointed out, it is often difficult to identify common mechanisms of toxicity (ethanol, for instance being very similar to methanol but much less toxic). However, more should be done to determine the potential for mixtures of chemicals to harm the environment and human health. CEPA 1999 already directs the Ministers to conduct research on hormone disrupting substances (though the results of this obligation were less than obvious in the review), and it should also direct them to do the same on mixtures of chemicals.

Recommendation 13

That the government:

- **Amend CEPA 1999 to oblige the Ministers to perform research into the effects of complex mixtures of chemicals on human and environmental health;**
- **Use s.46 and s.71 to require industry to submit information on the effects of complex mixtures; and,**
- **Require information on the cumulative effects of substances with a common mechanism of toxicity in the New Substances Notification Regulations where there is reason to believe that such environmental or human exposures may occur.**

It's Not Just Cancer: Subclinical Outcomes

Much of the risk assessment process in the past has been aimed at identifying levels of substances that cause easily identifiable outcomes such as cancer. These outcomes are clearly of concern to Canadians and must remain so. But as the Committee learned, incidences of cancer may not be the primary concern from exposure to chemicals. In fact, environmental exposure to chemicals may well be low on the priority list of public health risks that need to be addressed with respect to cancer.

Other outcomes are also difficult to assess but could be even more insidious. It was pointed out that the effects of mercury on IQ from *in utero* exposure could sufficiently shift a populations IQ distribution to significantly increase numbers of handicapped children and decrease the number of those that are gifted, inflicting substantial societal cost.[34]

Because of the potential for widespread subclinical effects on development, developmental neurotoxicity studies should be critical in assessing risks of substances. The Organisation for Economic Co-operation and Development (OECD) has developed draft standard developmental neurotoxicity tests, and the United States EPA Neurotoxicity Risk Assessment Guideline was published in 1998. There is no obvious requirement under

[34] Dr. Gail Krantzberg, Professor and Director, Dofasco Centre for Engineering an Public Policy, McMaster University, Evidence, June 21, 2006

the New Substances Notification Regulations of CEPA 1999 for such tests. It is the Committee's opinion that developmental neurotoxicity tests should be included as standard requirements for notifiers of new substances, and that existing substances should be more closely examined for these effects.

Recommendation 14

That the government add developmental neurotoxicity tests to those required in the *New Substances Notification Regulations* and that such tests also be applied to existing substances of concern.

Chronic Toxicity

A number of interveners also noted that there is a lack of information on the chronic effects of long-term exposure to chemicals. Current test requirements in the New Substances Notification Regulations do not require studies to examine the chronic effects of a substance. In some cases, mammalian repeat dose experiments are required, though the duration is only of "at least 28 days." The new REACH requirements will mandate tests of up to 90 days in some cases.

Guideline 452 of the OECD Guidelines for Testing of Chemicals, "Chronic Toxicity Studies," requires tests to be of 12 months duration. The Committee believes that "chronic toxicity studies" as defined in the OECD Guideline 452 should be made mandatory for all substances deemed to be persistent or that are high production volume and therefore persistently present in the environment, whether existing or new.

Recommendation 15

That the government make it a requirement for producers of new and existing substances deemed to be persistent or high production volume to perform chronic toxicity studies on these substances according to OECD Guideline 452, and submit the results to the Ministers as part of the risk assessment.

APPLYING PRECAUTION

One of the key principles of the Act is the Precautionary Principle. It is mentioned in the preamble, but more importantly in the Administrative Duties section where it states that the government is obliged to apply it. It is defined in the Act in the manner of the Rio Declaration:

> Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The Rio definition has been used so often it is all too easy for it to simply roll off the tongue without giving much careful thought as to what it means, though it is essential to the Act.

The precautionary principle cannot be interpreted to require certainty of no harm. However, the question becomes somewhat mixed up with the burden of proof debate as to whether or not it should be the responsibility of the government to show harm versus the responsibility of industry to prove that they are safe. The latter cannot be accomplished, but it should also not be necessary for the government to show with certainty that there will be harm.

A rewording of the precautionary principle could help interpret its meaning within the context of CEPA 1999. The interpretation of Horace Krever, of the Commission of Inquiry on the Blood System in Canada, was read into the record, and the Committee believes that it can serve as a useful guide:

> Where there is reasonable evidence of an impending threat to public health, it is inappropriate to require proof of causation beyond a reasonable doubt before taking steps to avert the threat.

The government has published a document entitled *A Framework for the Application of Precaution in Science-based Decision Making about Risk*. One of its guiding principles is that "precautionary measures should be proportional to the potential severity of the risk being addressed and to society's chosen level of protection. There is [therefore] an implicit need to identify, where possible, both the level of society's tolerance for risks and potential risk-mitigating measures."

How does a government decide a society's tolerance for risk? People in general likely do not spend much time thinking about risk in any kind of comprehensive or well informed manner, despite the odd headline in newspapers. They almost certainly do not vote based on the perception of one party being more cautious than another. There is therefore little incentive for government's to put much effort into analyzing the public's perception of risk.

Consequently, there is room here for a degree of leadership on the part of the government.

In Europe, governments have clearly applied the precautionary principle more rigorously than in Canada, as is the case with their decision on phthalates and polybrominated diphenyl ether flame retardants. In the United States, the precautionary principle is not written into laws, but the government there has also taken action on some substances long before Canada.

Though any risk assessment must be based on science, there is a significant ethical element to any decision regarding final decisions.[35] How much evidence of harm will a government need before it acts to avert it? Such decisions are not easy and depend to a large extent on the precautionary leanings of the government of the day, as well as the political will to take action. The cautionary tale of stratospheric ozone alone should provide incentive enough to take decision-making very seriously and very cautiously.

Mandating Precaution?

While acting in a precautionary manner will always depend on the political will to do so, there were many suggestions about how to make the Act more precautionary by increasing the number of mandatory actions under it.

> It's precisely because of the various stages in the Act where we don't have tailoring of what to do and when, in respect of the most dangerous substances, that we need to be more specific about how to implement precaution. It doesn't mean, for example, plugging in that word “precaution” at every one of those stages, but being more mandatory at different stages. It's the tailoring of discretion, as I was talking about earlier, that would best achieve the more mandatory taking of precautionary measures throughout the act.[36]

The following sections summarize some of these suggestions.

Improving Timelines

Various stakeholders suggested that one way to force the government to be more precautionary is to insert mandatory timelines where there is now discretion. The argument was made repeatedly that the only reason that the Domestic Substances List (DSL) categorization was completed was that there was a mandatory timeline associated with it. Since this is one of the few unequivocal successes of CEPA 1999, then perhaps timelines may induce even more action.

In and of itself, the categorization process could be seen as a precautionary act; however, it is what happens subsequently that will determine if it is in fact so. Similarly, if mandatory timelines were installed at every discretionary phase of the Act, they would almost certainly be met, but without political will to be cautious, and certainly without resources, decision making could very well suffer and could be less precautionary. Departmental officials brought this point home:

> What I'm essentially trying to say is that if you give me a timeframe of six weeks, six months, or six years, we will complete it in that time. That is our job. What increases as the time shortens is the amount of variability or uncertainty in an evaluation. With more

[35] Paraphrasing Dr. Gail Krantzberg, McMaster University, As an Individual, Evidence, December 12, 2006
[36] Mr. Hugh Benevides, Counsel, Canadian Environmental Law Association, Evidence, June 5, 2006

> time, we have the ability to do more scientific research and arrive at more certainty. With less time, if the information is not available, then we have more uncertainty that has to be introduced into the evaluations.[37]

The timelines of most importance seemed to be for substances identified for further screening during the categorization of the DSL. One recommendation was for all those substances identified as PBiT to be placed on Schedule 1 unless industry could demonstrate no harm. Another was to prioritize the top 500 eco-toxic PiT and BiT substances as well as the top 100 human health toxic substances, and apply a two year deadline for a screening to take place and a five year total for a management plan to be in place.[38]

The results of the DSL categorization, and what the government intends to do about it, were released the week before the end of the Committee's deliberations. The key action was to identify 200 of the highest priority substances (PBiT and high exposure) and set in motion a process to perform screening assessments on them as required in CEPA 1999.

The timelines for the assessments are that every three months the government will publish a notice requiring information on 15 of the 200 substances. Industry will have six months to provide such information or the substances will be added to Schedule 1. If information is supplied, the Ministers have six months to assess it after which a two month public consultation period will be opened on the results of the screening assessment and the Ministers' proposed decision under s. 77 (2) to:

- Take no further action;
- Add the substance to the Priority Substance List (PSL); or,
- Add the substance to Schedule 1 and the Virtual Elimination List if required.

The Ministers have another six months to publish their final recommendation and a proposed risk management strategy.

Thus the timeline for a screening has been set at essentially 20 months from the request for information to the publication of a recommendation and proposed risk management strategy, should action be required. However, there remains the option to take no further action or to add the substance to the PSL. The PSL assessment process is essentially open ended, with timelines only applied after the assessment is finished.

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37 Mr. Paul Glover, Director General, Safe Environments Programme, Department of Health, Evidence, October 17, 2006

38 Pollution Watch, "Reforming the *Canadian Environmental Protection Act* 1999" Submission to the Committee, June 2006

It will also take over three years[39] to finish publishing notices for the 200 substances and another year and a half (maximum) to publish the last risk management plan. There remain 3800 substances identified in the DSL categorization as priorities and others that may be of concern but did not meet the specific criteria of the categorization. Interjurisdictional data sharing will be essential to assess all of these substances (see sections above on Data Sharing).

There are some reasonable timelines in this approach, but the final analysis of whether or not the categorization process and screening have been sufficiently precautionary will depend, as discussed above, on how the final decisions are made. One option remaining, is "No further action in respect of the substances" (s. 77 (2) (a)) as long as industry submits data.

Other processes in the Act have indeed taken an exorbitantly long time, a point which was driven home in the 2002 Report of the Commissioner of the Environment and Sustainable Development. From listing of trichloroethylene on the Priority Substance List (PSL) to the publication of its management regime, took over 13 years.

The government has stated that it can perform screenings in 20 months. Perhaps under other circumstances more time may be required, but two years should be enough.

Should the government choose to use the PSL, the Committee is of the opinion that there should be a three year time limit from the time of decision to use the PSL to publication and the commencement of implementation of a risk management plan, though there may have to be exceptions if the results are appealed to a review board. With the addition of a two year screening, this would effectively mean that 5 years would be required for a screening to the beginning of the implementation of a risk management plan after a PSL assessment.

Recommendation 16

That the government amend CEPA 1999 to ensure:

- **In the case of a screening that determines a substance to be toxic, a timeline of two years from the beginning of the screening assessment to the commencement of an implementation plan; and,**

[39] 15 substances every three months is 60 per year and 180 in three years.

- **In the case of a screening that determines the need for a full Priority Substance List assessment, a timeline of five years from the beginning of the screening assessment to the commencement of an implementation plan.**

Taking Into Account Vulnerable Populations

One way of integrating a precautionary approach into the Act is to make it mandatory to take into account vulnerable populations in the risk assessment process. Numerous witnesses highlighted the need to take into account vulnerable populations, particularly children. The risk assessment process already does take into account vulnerable populations, but it is unclear exactly how such information is, in fact, taken into consideration. It should be made explicit in the Act, particularly given concerns regarding subclinical effects from developmental toxicity.

There was some hesitancy on the part of some witnesses to take into account vulnerable populations.

> If vulnerable subgroups are explicitly considered in the act, it will likely lead to greater precaution, because data are often lacking. I would prefer to fill data gaps to reduce the uncertainty in the decision-making process rather than build into the act an allowance for greater uncertainty with unknown risk benefits. We need decisions that are based on better knowledge.[40]

To obviate the need for an extra safety factor, better information is needed, particularly regarding developmental neurotoxicity. The Committee has already made recommendations with respect to information. Filling data gaps is preferable but not always possible. While the Committee recognizes that there are differing points of view, it believes that the need for greater precaution, particularly in products that are designed for use in or around homes or schools, is justified.

Application of CEPA 1999 to better protect children is important, but can only have a limited effect, particularly given the wide range of the important public health factors that impact them. When asked specifically about how to protect children, one witness responded by saying that addressing child poverty is the number one action that should be taken.[41]

Most of the instigation for taking into account children came from activity in the United States, particularly the *Food Quality Protection Act*. This Act made it a requirement to add, under certain circumstances, a ten fold safety factor for children.

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[40] Dr. Roger Keefe, Imperial Oil Limited, Evidence, November 6, 2006

[41] Kathleen Cooper, Researcher, Canadian Environmental Law Association, Evidence, November 6, 2006

The *Pest Control Products Act* includes such language under section 7 (7):

> (7) In evaluating the health and environmental risks of a pest control product and in determining whether those risks are acceptable, the Minister shall […]
>
> (ii) apply appropriate margins of safety to take into account, among other relevant factors, the use of animal experimentation data and the different sensitivities to pest control products of major identifiable subgroups, including pregnant women, infants, children, women and seniors, and
>
> (iii) in the case of a threshold effect[42], if the product is proposed for use in or around homes or schools, apply a margin of safety that is ten times greater than the margin of safety that would otherwise be applicable under subparagraph (ii) in respect of that threshold effect, to take into account potential pre- and post-natal toxicity and completeness of the data with respect to the exposure of, and toxicity to, infants and children unless, on the basis of reliable scientific data, the Minister has determined that a different margin of safety would be appropriate.

If such actions are already taking place, there is no reason for this language not to be written into CEPA 1999, if they are not, then CEPA 1999 must be amended to require them.

Recommendation 17

That CEPA 1999 be amended in the preamble to include recognition of the need to protect the most vulnerable in our society, particularly children, and that Part 5 be amended to include language similar to the *Pest Control Products Act*, directing that consideration of vulnerable groups take place in the risk assessment process, including an extra ten-times safety factor for children where appropriate.

Taking Into Account Vulnerable Ecosystems

Quite a few interventions and briefs recommended that CEPA 1999 be amended so that areas of national or international environmental importance that are threatened by toxic substances be protected. The region most often cited was that of the Great Lakes Basin. It was suggested that a new section of the Act be created to protect this region.[43]

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[42] An effect that occurs above a generally accepted minimum dose (or threshold). Threshold substances include chemicals that cause cancer but do not damage DNA (non-genotoxic carcinogens) and chemicals that do not cause cancer or for which there is insufficient data on carcinogenic potency (sometimes called "non-carcinogens"). (Health Canada, Decision-Making Framework for Identifying, Assessing, and Managing Health Risks — August 1, 2000)

[43] PollutionWatch, Reforming the *Canadian Environmental Protection Act*, Submission to the Parliamentary Review of CEPA 1999, June 2006

There can be no question that the Great Lakes are of national and international importance and that they are subject to inputs of a great many chemicals. They are indeed in need of special protection and rehabilitation.

Various international and national agreements, in particular the *Great Lakes Water Quality Agreement* (GLWQA) and the *Canada-Ontario Agreement*, are being implemented in order to protect and clean up the Great Lakes. These are both in a state of flux as the GLWQA is currently under review. The Committee hopes that the governments of Canada and the United States renew vigorously their efforts to protect the Great Lakes, and that they follow-up on the recommendation of the International Joint Commission that the two federal governments replace the current GLWQA with a shorter and more action-oriented document, and that they do so swiftly.

In line with the general approach that major changes should be avoided, taken by the Committee regarding the review of CEPA 1999,, it is not recommending that a new section be added to the Act specifically referring to the Great Lakes. In addition, CEPA 1999 already has provisions that allow for regulations to "be made applicable in only a part or parts of Canada in order to protect the environment or its biological diversity or human health" (s. 330 (3.1)). The Committee recommends that the government fully explore its options under this section to better protect the Great Lakes Basin and any other vulnerable ecosystems in Canada..

In addition, in a similar manner to the recognition of the need to protect vulnerable groups, a paragraph should be added to the preamble referring to the need to protect vulnerable ecosystems, in particular the Great Lakes Basin.

Recommendation 18

That the government amend CEPA 1999 to add an additional paragraph to the preamble recognizing the need to protect vulnerable ecosystems and that it explore fully its options under s. 330 (3.1) to create regulations with limited geographical application in order to protect the Great Lakes and any other vulnerable ecosystems in Canada.

CONSUMER PRODUCTS

Proper management of consumer products is a very important issue, since many exposures to chemicals come through the release of those products at home. Multiple issues regarding consumer products were raised with the Committee, and it would seem from the testimony that this is the area most at risk of falling through the gaps in the legislative safety net.

Various chemicals in commerce that have been approved for human use under the *Food and Drug Act* have not had an environmental assessment of any sort. Some consumer products, such as mercury thermometers, are still on the market even though at face value they seem to be tailor-made for removal. Similarly, lead seems to be prevalent in any number of consumer items even though only marginally more expensive substitutes are available. Various suggestions were made to close the gaps regarding exposure to toxic substances from consumer products.

THE "IN-COMMERCE LIST"

The Domestic Substances List (DSL) is a list of all substances in commerce or manufactured in Canada between January 1, 1984 and December 31, 1986. These substances were subject to the categorization process of CEPA 1999 and those of concern will be further subjected to a screening. All other substances are considered new and must undergo an assessment under the New Substances Notification Regulations (NSNR).

However, substances in products approved for human use under the *Food and Drug Act* that were in commerce between January 1, 1987 and September 13, 2001, though technically new substances under CEPA 1999, have not yet been subject to the NSNR pending decisions on how to assess them. This list of substances has no legislative basis but it has been termed the "In Commerce List"(ICL).[44]

The regulatory regime for the new substances that are covered by the *Food and Drug Act* seems to be satisfactory to the stakeholders. In contrast, the management of the ICL received some attention during the Committee's deliberations. Industry stakeholders would like these substances treated as existing, that is that they be essentially placed on the DSL and subjected to a categorization process similar to that which has already occurred for the DSL.

There is currently an Environmental Assessment Working Group (EAWG) being established at Health Canada to provide broad, strategic advice on policy, technical, operational and regulatory issues to Health Canada and Environment Canada on the revision, prioritization and management of substances on the ICL.[45] Consultations with industry have also been on-going through Health Canada regarding how to organize and prioritize the ICL.

[44] There are approximately 9 000 such substances, though some of these are not well identified and some are also on the DSL.

[45] Health Canada, "Environmental Assessment Working Group," accessed January 17, 2006 http://www.hc-sc.gc.ca/ewh-semt/contaminants/person/impact/consultation/eawg-gtee/index_e.html

What to do with the ICL is complicated and consultations are ongoing, consultations which include how, in general, to assess substances in FDA-approved products for environmental impact. Given the growing concern with the effects of pharmaceuticals and veterinary drugs on the environment, the Committee can only suggest strongly that this ongoing process reach a conclusion as soon as possible.

The Committee does not feel it is in a position to recommend amendments to CEPA 1999 allowing for these substances to be listed on the DSL, but the DSL categorization was a success and could be seen as a model for the ICL. However, the prioritization of the ICL should not take the same form as the categorization of the DSL, which stressed PBiT. Many of the substances on the ICL are designed to be biologically active and could be persistently present, the result of their continuous release into the environment, as discussed regarding Recommendation 3.

Recommendation 19

That the government consider amending CEPA 1999 so that substances on the "In Commerce List" are prioritised in a similar way as categorization was done on the Domestic Substance List, while also considering that some of these substances may be persistently present because of their continuous release into the environment.

THE HAZARDOUS PRODUCTS ACT* AND THE *CANADIAN ENVIRONMENTAL PROTECTION ACT, 1999

CEPA 1999 gives the government the authority to regulate products containing substances, but these authorities have rarely if ever been used.

Consumer products may be regulated under the *Hazardous Products Act* such as jewellery containing lead marketed to children. The Committee heard quite a lot of powerful, and what could only be described as scathing, testimony about lead in consumer products: so much so that the departments wrote a lengthy reply in an attempt to list the efforts underway to control lead and to clarify some of the points brought up.

Whatever the Department may be doing toward regulating lead in consumer products, the process is unquestionably slow. Part of this is almost certainly the result of the cumbersome and outdated *Hazardous Products Act*.

> The *Hazardous Products Act* is 37 years old and entirely reactive, and product-by-product focused, all of which is very cumbersome and slow. And the lead example is what I use to illustrate that.
>
> As you know, we have identified in the last 15 years, especially the last 10 years, increasingly the fact that hazardous exposures indoors, where we spend most of our time, are originating from products. The *Hazardous Products Act* doesn't have the structure or the resiliency or the ability to prevent those problems from happening. It

> reacts after a problem has occurred and, so far anyway, it's only situations of extremely serious hazard, of well-known, well-established hazards of a small number of substances.[46]

There seems to be no justification, other than historical, for why the *Hazardous Products Act* is used instead of CEPA 1999 for managing products that contain toxic substances. The Departments may be beginning to look at using CEPA 1999, as is suggested by their intention regarding polybrominated diphenyl ethers (flame retardants). This process should accelerate. The authorities under CEPA 1999 seem much more flexible and have the potential to be a much more efficient manner of managing consumer products containing toxic substances.

> CEPA is addressing the entire range of chemicals in commerce and has the ability, and can increasingly have the ability, to address more chronic toxicity and a broader range of health effects.
>
> And the notion of materials use is an efficiency measure as well as getting beyond that product-by-product focus. To me, it's more logically situated in CEPA than in a product-focused statute like the *Hazardous Products Act*. But the two need to dovetail.[47]

Recommendation 20

That the government immediately begin:

- **Regulating products containing toxic substances using CEPA 1999 as the principal statute to this end; and,**
- **A review of the *Hazardous Products Act* in order to better coordinate it with CEPA 1999.**

IMPLEMENTATION

As mentioned previously, CEPA 1999 is still a young Act and has yet to be fully implemented. The department and stakeholders have been, and continue to be, on a learning curve with respect to how it can operate. Some commentary has already been made in this report about how CEPA 1999 has been implemented, but there are important aspects which have yet to be addressed.

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[46] Mrs. Kathleen Cooper (Senior Researcher, Canadian Environmental Law Association, PollutionWatch), Evidence, December 11

[47] Ibid.

VIRTUAL ELIMINATION

The concept of virtual elimination stems from the *Great Lakes Water Quality Agreement* and Canada has been implementing virtual elimination under that agreement through the *Canada-United States Strategy for the Virtual Elimination of Persistent Toxic Substances in the Great Lakes Basin* since 1997.

As described under the Agreement, virtual elimination is to be based on the philosophy of zero discharge.[48] As implemented under the Binational Strategy, virtual elimination is essentially about urgently reducing releases of the most persistent and bioaccumulative toxic substances in incremental and achievable steps until for practical and toxicological purposes they are no longer a problem. There are no timetables for its achievement.

In contrast, the virtual elimination sections of CEPA 1999 have yet to be used. One substance, hexachlorobutadiene, has been added to the Virtual Elimination List but it has never been manufactured in Canada and it is no longer imported. Small but possible numerous releases of it might be expected from the manufacture of certain chlorinated compounds. Release limits for it are technically impossible to set, and apart from prohibiting its use so that it cannot re-enter into commerce the only other action taken has been the passing under CEPA 1999 of the Solvent Degreasing and Dry Cleaning regulations, which have other primary purposes.[49]

Given that virtual elimination of the most persistent and bioaccumulative toxic substances is a key goal of the Act, this section of the Act can only be described as an abject failure. After 12 years of study and consultation since it was added to the Priority Substances List, hexachlorobutadiene has been added to the Virtual Elimination List (VEL), but the addition will have little to no practical effect.

Part of the problem with the virtual elimination section of the Act has been the requirement for the Minister to establish a level of quantification (LOQ) before the substance can be added to the list. The LOQ is defined as “the lowest concentration that can be accurately measured using sensitive but routine sampling and analytical methods.” According to testimony and several comments in the Canada Gazette announcement on the addition of hexachlorobutadiene to the VEL, the requirement to establish the LOQ has been problematic to say the least.

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[48] The International Joint Commission, in its Sixth Biennial Report, described zero discharge in the following manner:
Zero discharge means just that: halting all inputs from all human sources and pathways to prevent any opportunity for persistent toxic substances to enter the environment as a result of human activity. To prevent such releases completely, their manufacture, use, transport and disposal must stop; they simply must not be available. Thus, zero discharge does not mean less than detectable. It also does not mean the use of controls based on best available technology, best management practices, or similar means of treatment that continue to allow the release of some residual chemicals.

[49] Government of Canada, Virtual Elimination List, Canada Gazette Part II, Vol. 140, No. 25, December 13, 2006

> CEPA requires establishing so-called limits of quantification for the substances that are subject to virtual elimination. This requirement applies even when we think it should be unnecessary — for example, when those substances are only there as irrelevant trace contaminants in a product. We believe having government, industry, and environmental groups spend the resources on figuring out and looking at the issues around what the limit of quantification should be in those cases is unwarranted. Setting those limits should be left to situations where they are needed.[50]

Given that virtual elimination is really an urgent process of incrementally reducing releases of some of the substances of most concern, having to squabble over a limit of quantification before action occurs is completely counterproductive. The requirement should be eliminated.

Recommendation 21

That CEPA 1999 be amended by removing the requirement to establish a level of quantification before addition of a substance to the Virtual Elimination List.

Because it has been difficult to use the virtual elimination powers of CEPA 1999, the departments have used prohibition regulations as a means to manage substances of the greatest concern. Hexachlorobutadiene, for instance, was subject to prohibition regulations in February 2005, almost two years before it was added to the VEL.

The prohibition regulation from 2005 generally prohibits the manufacture, use and sale of a substance listed in its Schedule 1, but enables a permitting system to allow persons that were already using them three years to meet the prohibition. The Regulatory Impact Analysis Statement for the prohibition regulations made it clear that prohibition could be a method of working toward virtual elimination:

> The prohibition on manufacture, use, sale, offer for sale, or import of the substance (hexachlorobutadiene) will work towards the objective of virtual elimination.[51]

There was some confusion in testimony as to what the relationship was between prohibition and virtual elimination. Virtual elimination should be seen as the ultimate goal for PBiT substances and it should be made clear that prohibition may be a tool to achieve it.

Recommendation 22

That the government amend CEPA 1999 to clarify that prohibition regulations are an option toward achieving the objective of virtual elimination.

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[50] Mr. Gordon Lloyd, Vice-President, Technical Affairs, Canadian Chemical Producers' Association, Evidence, May 17, 2006

[51] Canada Gazette Part II, "Order Adding a Toxic Substance to Schedule 1 to the Canadian *Environmental Protection Act*, 1999" SOR/2005-40 February 15, 2005

Since the aim of virtual elimination is to tackle PBiT substances, if one is identified it should automatically be added to the VEL, and realistic and achievable steps should be immediately taken to reduce its releases.

The implementation of virtual elimination should involve continuous application of increasingly stringent measures being applied to reduce releases. In some sense, it may be a never ending process, though presumably at some time a point of sufficiently diminishing returns will be reached where efforts can stop and virtual elimination can be said to have been achieved. But that point should not have to be set ahead of time, it can be set as part of the process after listing and initial steps have been taken.

ACTION NOT PROCESS

The Committee heard a lot about the case of road salt, and clearly there are lessons to be learned from it, as the Department of Environment readily admitted. How many generalizations can be made from this case is unknown, but it would seem that there are at least some, one of which is to begin risk management as early as practical while the assessment process continues.

Road salts were added to the second Priority Substance List (PSL2), which was published in 1995. In December 2001, the Ministers published their intent to add road salts to Schedule 1, but Cabinet refused to do so. Why road salts were added to the PSL2 is unclear, particularly when the recently completed categorization of the DSL (which had not been legislated at the time) has identified 200 PBiT substances that might be of greater concern. At this point in time, it is almost self evident that too much road salt will damage vegetation in the vicinity of roads, and that reducing its use while maintaining road safety makes common sense.

Perhaps the risk assessment process was used as the stick to get the industry moving on a management scheme. This is a legitimate use of such powers:

> I would simply note that without the process of investigation at the federal level of the impacts of using road salt, we would never have had those results happen. The reason for that is quite straightforward: it's that we know that when there is a credible threat of regulation at any level of government, then action ensues. It's a great motivator for action. So it's an appropriate role.[52]

Unfortunately, there didn't seem to be a carrot to accompany the stick in this case. A press conference announcing the impending listing was apparently carried out without warning to the industry creating a certain amount of tension between stakeholders and the government. In the end, however, the risk management process went quite smoothly.

[52] Hugh Benevides, Evidence, September 26, 2006

While it is true that the industry may not have been willing to come to the table without a threat of regulation, other positive risk management actions occurring at the same time as the risk assessment would have greatly sped up the process of achieving positive environmental outcomes.

> Depending on the substance and the context, the threat of regulation can sometimes be as effective as regulation itself. Use carrot-and-stick principles to get to positive environmental actions sooner. Consider the use of incentives for environmental performance that might drive positive outcomes faster and with wider impact.[53]

The Committee is pleased to see that the information being required of industry, for the 200 substances identified in the DSL categorization, will be used to identify best practices for risk management. In addition, discussions with stakeholders will begin at the time of the proposed listing of substances regarding risk management approaches. This approach should be expanded in the future, particularly if the relatively long Priority Substance List process is used again:

> The other recommendation I'd make is start the risk management discussions as soon as the assessment has begun. You might find a surprisingly large amount of consensus already about what needs to be done now in the context of managing the environment, the substance in the environment, or the context that is being used. So those resources that are now expended on fighting each other could instead be used to actually get into environmental actions faster. I don't think there's any statutory change required in order to start a two-track process where you begin the risk management discussions as the risk assessment is taking place.[54]

Recommendation 23

That Environment Canada engage stakeholders in identifying and implementing best practice risk management actions as soon as a risk assessment has begun.

POLLUTION PREVENTION

Pollution prevention is the raison d'être of CEPA 1999, and yet it does not seem to attract the focussed effort that is needed to implement it. Fundamentally, there seems to be no clear concept of what it means, with many witnesses stating that it was possible under the Act to define any measure to decrease pollution as pollution prevention, including "end-of-pipe" control.

The Act itself defines it 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." Minimizing the creation of pollutants is therefore at the core of the Act and would seem to be counter to end of pipe solutions.

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53 Mr. Michael Teeter (Consultant, Salt Institute of Canada), Evidence, December 12, 2006

54 Mr. Michael Teeter (Principal, Hillwatch Inc., As an Individual), Evidence, October 17, 2006

Pollution prevention, in the sense of avoiding the creation of pollution, is clearly the preferred action. As the pollution plan website states: "Accountants call it loss control… engineers call it efficiency and managers call it total quality management… but most of us call it common sense!"[55]

CEPA 1999 gave the Minister the authority to require a persons or a class of persons to prepare and implement a pollution prevention plan. Though it may be common sense, any new legislative authority such as this needs to be put into practice, and that is always more easily said than done. There have only been seven plans ordered so far, the earliest being in 2003, and there is no real data to determine whether or not they are achieving their objectives. Some witnesses complained about the difficulty of measuring the success of pollution plans and enforcing them:

> Many of these plans and I will cite the one case for base metal smelters in Canada which are largest emitters of CEPA toxic metals … They have limits under these pollution prevention plans that are factors to consider. They're not legally enforceable.[56]

This is one area where the Auditor General's Office suggested that they would examine:

> I can tell you some organizations will argue pollution control, "end of pipe" control, is a form of pollution prevention, but in my view it's a bit of a game, because the intent of pollution prevention is not to generate the stuff in the first place, and that's what we would want to pursue in an audit: to find out whether the pollution prevention plans, which are one of the CEPA instruments, are really achieving that.[57]

Pollution prevention plans can currently recognize other plans under other Acts, including those of other jurisdictions. Gordon Lloyd of the Canadian Chemical Producer's Association suggested that voluntary responsibility programs, such as that run by his organisation, should also be eligible for recognition as a pollution prevention plan. While the Committee appreciates the efforts of his association's member companies, the data is still out on whether or not the current pollution prevention plans are working. Until such a point, elements of responsibility plans could certainly be incorporated into pollution prevention plans, but the Committee could not recommend that they be recognized wholly.

Recommendation 24

That Environment Canada create a formal performance measurement mechanism for pollution prevention plans that will enable their achievements to be measured.

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55 National Office of Pollution Prevention, The Nuts and Bolts of Pollution Prevention, http://www.ec.gc.ca/nopp/docs/fact/en/p2NB.cfm accessed January 17, 2006

56 Ms. Anna Tilman, Save the Oak Ridges Moraine Coalition, Evidence, 12 December 2006

57 Mr. John Reed (Principal, Office of the Commissioner of the Environment and Sustainable Development), June 19, 2006

Recommendation 25

That the Commissioner of the Environment and Sustainable Development, in his next performance audit of the management of toxic substances, examine whether or not pollution prevention plans are reducing the creation of pollution.

The Substitution Principle

The Committee heard a good deal regarding the substitution principle. In effect, this means that as part of a risk management strategy, replacing the substance with safer alternatives, should be a primary goal. This is logically a good way to prevent pollution from being created in the first place. With a few reservations, the Committee believes that this principle should be highlighted more within CEPA 1999.

There are limitations to how this principle can be applied. There is no point in substituting a substance that has undergone a rigorous risk assessment and found to be toxic, with a substance that may be safer but has yet to undergo a risk assessment. There may always be unintended consequences to substitution that must be fully explored for their impacts.

> We hope that if we substitute a substance, it will be safer than the one before it. Obviously that's what the intent is, but it's not always easy to know that. You can't predict. And truly one of the main points I try to make is that one should never suggest that they have knowledge that actually doesn't exist. There's just way too much that we don't know about what the consequences are of regulating and substituting.[58]

But the principle is really that substitution should be seriously examined, not that it should be automatic. In the European Union's Common Position on REACH, the following statement was made:

> To support the aim of eventual replacement of substances of very high concern by suitable alternative substances or technologies, all applicants for authorisation should provide an analysis of alternatives considering their risks and the technical and economic feasibility of substitution.[59]

This does not seem to be too onerous, nor to open the door to rampant abuse of the principle. Indeed, as the Committee was told, the United Kingdom's Chemical Industries Association, the Confederation of British Industry, and Greenpeace, have also come to a common position, namely, that "substances requiring an authorization within REACH... should be replaced with less hazardous alternatives wherever and whenever practicable."[60]

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58 Dr. Joe Schwarcz, Director, Office for Science and Society, McGill University, Evidence, June 21, 2006

59 Council of the European Union, Interinstitutional File: 2003/0256 (COD), Common position adopted by the Council with a view to the adoption of a Regulation of the European Parliament and of the Council concerning … (REACH), June 12, 2006

60 Mrs. Beverly Thorpe, International Director, Clean Production Action, Evidence, October 19, 2006

In fact, the actual common position of these groups was that:

> We share the view that a requirement within the authorisation procedure to substitute substances of very high concern if an acceptable alternative that does not fall into the very high concern category is available has the potential to drive innovation to the benefit of business, human health and the environment. However, to be effective, substitution will require commitment from the total supply chain, not just from producers.[61]

Substitution should therefore be applied cautiously, but as it stands CEPA 1999 makes no mention of it. pollution prevention plans themselves may only discuss alternatives as factors to be considered in the preparation of the plan.

Recommendation 26

That the government amend CEPA 1999 to include specific instructions to strengthen current efforts by which replacement of toxic substances by suitable alternative substances or technologies are considered in pollution prevention, risk assessment and management, and virtual elimination, including their risks and the technical and economic feasibility of substitution.

INCREASING RESOURCES

Improved implementation will likely require increased resources. Indeed, a departmental official, in responding to a question on why there was no interdepartmental strategic plan, stated that resources were already a problem:

> Health Canada and Environment Canada are extremely busy with meeting the legal requirements in the legislation.

> Health Canada has limited resources, and we're responding to the immediate requirements. When you're in the new substances program and you have 800 notifications, you have a very specific timeframe within which to respond to those. If you don't in that timeframe, they are, by default, allowed onto the market. Stopping to ask what we should do that's strategic matters less when you're trying to keep your head above water. I hope that is clear.[62]

If new timelines are to be met and the screening of the DSL is to be completed, the unused authorities of CEPA 1999 are to be used, and greater information is to be collected and analysed, more resources will almost certainly be required. Since the Committee is recommending all of these things, it must also recommend increased resources. However, it also hopes that some of the resources expended in the learning phases of implementing CEPA 1999 can be put to more practical use that show greater results for the environment.

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61 UK Stakeholders Forum, CBI, CIA, Greenpeace Common position with regard to the authorisation of substances of very high concern within REACH, January 25, 2005

62 Paul Glover, Evidence, June 12, 2006

Recommendation 27

That the government allot sufficient funds to increase A-Base funding to the Departments of Health and Environment so that CEPA 1999 can be implemented more effectively.

PUBLIC PARTICIPATION

Committee discussion regarding public participation in CEPA had two aspects: Improving consultation and removing barriers to citizens using the Environmental Protection Actions.

Consultation

Consultation with stakeholders is clearly a vital part of the implementation of the Act. But it has also clearly been an impediment to action and has been conducted badly in some cases.

> The comment on the department's emphasis on stakeholder consultations is a fair one. I think one can find that those processes — which are not mandated under CEPA, and which are an implementation decision — can at times become circular and lead to lowest-common-denominator types of outcomes.[63]

It is difficult to make recommendations on what could be considered a cultural problem in the Department. Environment Canada should, however, take steps to focus its consultation process, treat stakeholders with respect, limit the time period over which they occur and be prepared to make decisions in favour of the environment and human health even in the absence of broad agreement.

Environmental Protection Action

One of the expected outcomes of CEPA 1999, according to the Formative Evaluation of the Act, was “the opportunity to initiate investigations of alleged offences, recover personal damage and economic loss, make personal claims and file citizens' suits.” The environmental protection action (s. 22), however, has yet to be used. The Evaluation concluded that “Very few public applications for investigations or public environmental protection actions have been made. Barriers to increased public participation have not been formally examined.”

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[63] John Moffet, Evidence, June 5, 2006

Some interveners pointed out that the requirements to proceed with environmental protection actions were too onerous. Others suggested that a solution might be to add a fine splitting clause similar to that of s. 62 of the Fishery (General) Regulations of the *Fisheries Act* whereby half the proceeds of any penalty would go to the person who brought a suit against a person violating the Act.

The Committee is not in a position to recommend this, though it urges the Department of the Environment to formally examine barriers to increased use of s. 22 and that in its examination it look at the possibility of fine splitting.

Recommendation 28

That the government consider a provision for fine splitting, similar to that provided for in the *Fisheries Act*, and other intervener funding as means to address the identified financial barriers to public participation. In addition, that the government amend s. 22 (2) of CEPA 1999 so that an environmental protection action may be brought to court if the offence may result, in harm or serious risk of harm to the environment or human, animal, plant life or health.

INCREASING COORDINATION

Coordination in the implementation of CEPA 1999 refers to internal departmental coordination, interdepartmental coordination and interjurisdictional coordination.

Interdepartmental Coordination

Some examples of intra and interdepartmental problems did come up:

> To give you an example, mercury in a thermometer can be regulated by CEPA but it's left to the medical devices folks who say "well, we don't think mercury in thermometers is a problem". So mercury thermometers remain on sale in Canada.[64]

> The departments engaged in the toxics debate at the time were almost at war with each other over virtual elimination, what it meant, and in particular how to apply it to naturally occurring substances. That was very much stopping progress.[65]

Part of the problem is a lack of strategic plan between departments. A lack of resources was cited as the reason why there was no strategic plan (see footnote 56). But having one in place could smooth operations and increase the efficiency of departmental activities, particularly with respect to consumer products as previously discussed.

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64 Dr. Kapil Khatter, Evidence, December 11, 2006

65 Mr. John Reed, Principal, Office of the Commissioner of the Environment and Sustainable Development, Evidence, June 19, 2006

Equivalency Agreements

One of the stated goals of CEPA 1999 is to promote coordinated action across Canada. The fact that only one equivalency agreement has been signed, and that stems from CEPA 1988, is proof enough that this goal of CEPA 1999 is not being achieved.

The equivalency agreements provisions provide for, by Cabinet decision, a regulation under CEPA 1999 to be declared not to apply in a province, a territory or an area under the jurisdiction of an Aboriginal government that has laws with equivalent provisions.

The Committee heard that one of the main barriers to the use of such agreements is the fact that the other laws must have equivalent provisions, which some interpret to mean similar regulatory frameworks. Provinces operate using permitting systems which CEPA 1999 does not use.

Some have suggested, therefore, that the equivalency provisions be amended to refer to laws whose provisions have an equivalent effect. While the Committee understands and is in agreement with the intention to increase coordination across Canada, it is concerned that the term “equivalent effect” may be overly broad, and that there would be difficulty in ensuring that agreements were indeed having an equivalent effect.

The Committee therefore believes that CEPA 1999 should be made more amenable to equivalency provisions by clarifying that provincial permitting systems may qualify as equivalent and that such agreements must contain agreed upon mechanisms for monitoring their effects.

Recommendation 29

That the government amend s. 10 of CEPA 1999 to clarify that provincial permitting systems may qualify as equivalent, and add that equivalency agreements must contain provisions for monitoring to ensure that their effects are equivalent.

The Canadian Council of Ministers of the Environment and the Canada Wide Standards

The Canadian Council of Ministers of the Environment (CCME) is comprised of environment Ministers from the federal, provincial and territorial governments. These 14 Ministers normally meet at least once a year to discuss national environmental priorities and determine work to be carried out under the auspices of CCME. The presidency of CCME rotates annually among member governments.

Since jurisdiction over the environment in Canada is shared, CCME works to promote effective intergovernmental cooperation and coordinated approaches to interjurisdictional issues such as air pollution and toxic chemicals. CCME members collectively establish nationally-consistent environmental standards, strategies and objectives so as to achieve a high level of environmental quality across the country. Ministers retain their individual authority and jurisdiction as members of CCME, while working together helps them to deliver their own mandate.[66]

The CCME is responsible for setting the nation wide, non-binding environmental standards known as Canada-Wide Standards. With respect to mercury, for instance, since 1998, the CCME has set CWS for mercury emissions from base-metal smelters and from waste incinerators, and mercury emissions from coal-fired power plants as well as mercury-containing lamps and dental amalgam waste.

The results of the CCME process received decidedly mixed reviews. One departmental official declared:

> There were six substances originally targeted and about 14 Canada-wide standards developed. They're all beginning to report on how well they've been implemented. So reports are starting to come out now, but I think it's fair to say that many of them have been very successful. Most of them have resulted in changes to provincial permitting processes, various instruments to implement them, and, for a number of them, you see the attainment of the standards.[67]

However, other commentary was not nearly as positive:

> A lot of the federal-provincial dynamic has taken place with the CCME, the Canadian Council of Ministers of the Environment. That has not been particularly productive at giving us environmental gains. It has probably led to better provincial-federal cooperation, but not to real environmental improvement.[68]

Other environmental stakeholders were also critical of the CCME and the CWS. One comment in particular was worrisome, if it is true. An intervener suggested that the CWS were being used as a standard not to be achieved by lowering pollution, as it is not enforceable, but instead was being used as justification for allowing increased pollution in relatively clean areas.[69]

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66 Preceding two paragraphs are from the CCME website, accessed January 18, 2006 http://www.ccme.ca/about/index.html

67 Mrs. Cynthia Wright, Associate Assistant Deputy Minister, Environmental Stewardship Branch, Department of the Environment, Evidence, December 4, 2006

68 Mr. Derek Stack, Executive Director, Member of CEN, ENGO Delegate, Great Lakes United, Evidence, May 10, 2006

69 Ms. Delores Broten, Senior Policy Advisor, Reach for Unbleached Foundation, Evidence, December 4, 2006

There do seem to be problems with the CWS, but cooperation between jurisdictions is essential and it is difficult to imagine a radically different approach to establishing it. The trick is to avoid a race to the bottom, which does seem to be what is happening. The federal government should show leadership at the CCME in an effort to prevent this from happening.

Previous recommendations in this report have encouraged the government to explore fully its options under s. 330 (3.1) to create regulations with limited geographical application. Such regulations might avoid the need for a nation-wide consensus and therefore a race to the bottom, while having a greater measure of enforceability.

COMPLIANCE AND ENFORCEMENT

Compliance and enforcement did not receive much attention during the deliberations. Some of the statistics that the government provided were surprising however, including:

- There was one compliance order given between 1998 and 2003-4 while there were 100 given in the year 2004-5.

- Despite there being 38 different regulations, (19 since 1998) there have only been 34 convictions since 1998.

Part of the response from the Department of Environment was that these enforcement statistics reflect a strong willingness to comply. While this may be true, there is no solid analysis of the enforcement and compliance within CEPA 1999. The Formative Evaluation of the Act stated:

> It is not possible to determine whether expected outcomes with respect to Part 10 of the Act will be achieved as measurement and reporting systems capable of documenting progress towards expected outcomes in this area remain under development at the time of this evaluation. Such systems will need to be developed and implemented in order to ascertain the likelihood of progress relating to the expected outcomes.

"Expected outcomes" presumably does not mean that quotas would be set on enforcement actions and prosecutions. But the Committee would certainly expect that the Department would have some mechanism to establish the value of its enforcement program in the implementation of the Act.

Recommendation 30

That the Department of the Environment create a system to measure and evaluate the role and implementation of the enforcement provisions of CEPA 1999.

THE USE OF THE WORD "TOXIC"

Without a doubt, on a word for word basis, the Committee spent more time discussing the use of the word "toxic" than any other in the Act. The use of "toxic" is clearly problematic to industry. This problem has been exacerbated greatly by the lack of context in Schedule 1.

Schedule 1 is the List of Toxic Substances, as defined under the Act. Once a substance is listed, it gives the authority to the government to implement any number of CEPA "tools" in particular regulation. Substances are added based on one or more of three criteria. A substance is toxic if it is entering or may enter the environment in a quantity 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 in Canada to human life or health.

Thus the definition of "toxic" in the Act includes both the hazard that a substance poses (its inherent toxicity) and the exposure of humans and the environment to it. This is consistent with the notion of "the dose makes the poison" which the Committee was referred to on numerous occasions. It may be less consistent with the general population's concept of a "toxic" substance being one that is poisonous even at low exposure.

Thus a substance can be placed on Schedule 1 as a result of it having deleterious effects at high exposure in certain contexts, despite the fact that it might be commonly used under different circumstances quite safely and usefully. Industry representatives repeatedly stated that because of this, their products were being given an unfair stigma.

The examples of road salt and ammonia in water came up continuously. Road salt was not added to Schedule 1, but had been found in its assessment to meet subsections (a) or (b). Ammonia in water was added to Schedule 1 after an assessment of ammonia in the aquatic environment found that it met subsection (a). Another example, carbon dioxide, was added as a greenhouse gas after an assessment concluded that it met subsection (b). Gaseous ammonia was added as a precursor to fine particulate matter as a result of particulate matter meeting subsection (c).

Industry's main objection to the use of the word "toxic" is that it gives all Schedule 1 substances the same connotation of being something to be avoided at all costs. People see the word "toxic" and think "high hazard", and may be confused given that, for example,

they may be essentially sprinkling such a substance on their french fries. Indeed, other international industries and governmental bodies apparently also need to have explained to them the meaning of the term “toxic,” as defined in CEPA 1999.

But few cases of concrete harm were brought before the Committee. In the most serious case, a potassium chloride contract was apparently in jeopardy because it is a constituent of road salt. The Japanese purchaser somehow found out about the intent to list road salt and was afraid that its buyers would not be able to use it on their farms. Use of a toxic substance might have precluded labelling a product as organic, for instance. Another case involved the B.C. Buildings Corporation Cleaning Management which states that all substances that are on Schedule 1 should not be in any products.

So while it has been a problem, it does not seem to have created enormous negative impact on industry. Its heaviest impact may have been on implementing CEPA 1999, as it creates a barrier to effective negotiation and action.

Many industry representatives suggested removing the word “toxic” altogether and replacing it with “substances to be managed.” This has some attractions, particularly its simplicity, but also has some disadvantages.

The constitutional authority for CEPA was narrowly upheld by the Supreme Court in the *R. vs. Quebec Hydro* case as a valid exercise of the federal criminal law power.[70] The removal of the word “toxic” would almost certainly invite litigation and, though unlikely, could tip the balance of the court on the issue of constitutionality.

There have been two attempts by the government[71] to remove “toxic” from all or parts of the Act, so presumably, lawyers from the Department of Justice who advise the government, are not terribly concerned about the constitutional authority issue. But one cannot know this for certain because such advice to departments is generally confidential.

The second problem is that removal of the word “toxic” could lead to much less concern on the part of society to control these substances.

The meaning of “toxic” should not be so difficult to explain. As the Committee was told time and again “the dose makes the poison.” The real problem would seem to be the lack of context in Schedule 1.

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[70] In the 1997 case *R.* v. *Hydro-Québec*(70), the 1988 CEPA was challenged as being *ultra vires* (beyond powers) the Parliament of Canada on the ground that two of its provisions did not fall within the ambit of any federal head of power set out in s. 91 of the *Constitution Act, 1867*. In a 5-4 majority decision, the Court upheld the statute as a legitimate use of the federal Parliament’s criminal law power.

[71] Bill C-43 from the 38th Parliament, first session, and Bill C-30 of the 39th Parliament, first session

How “ammonia in the aquatic environment” became “ammonia in water” is really incomprehensible. The greatest problem identified in the risk assessment of ammonia in the aquatic environment was ammonia releases from municipal wastewater facilities. Carbon dioxide itself can be very poisonous at high levels, but it is generally not, except that it is toxic to the environment as a greenhouse gas.

The Canadian Chemical Producers’ Association offered a compromise:

> But if it isn't acceptable to the Committee to change the “toxic” language as we've recommended, then I think something else that the Committee should recommend in its report is something that I believe there was a lot of consensus around from all parties and that's for the government to have to provide more context when a substance is listed on Schedule 1 as toxic.[72]

Recommendation 31

That the government change Schedule 1 to include the following information pertinent to each substance on it:

- **The subsection of section 64 that was met that triggered listing;**
- **A brief synopsis of the reasons why it is toxic at the doses observed; and,**
- **When available, the risk management tool intended to apply to the substance.**

CONCLUSION

There will always be risk associated with the use of chemicals, as there is with most things in life. Generally speaking, Canada’s management of chemicals, at least in terms of available legislation and corresponding authorities, is sound and in line with other OECD states. Other states, however, may proceed in a more cautious manner, but that may simply reflect their perceptions of their society’s tolerance for risks.

Acting in a more cautious manner will inevitably require political will. However, some of the recommendations that the Committee has made will also make CEPA 1999 an inherently more precautionary piece of legislation, without adding undue or onerous obligations. These include taking into account vulnerable populations and ecosystems and tightening the PSL timelines.

[72] Gordon Lloyd, December 12, 2006

In addition, installing a two-track response to substances of concern will ensure more timely action. Reasonable and achievable risk management actions must begin before the end of risk assessment process, which has historically been very long. This includes taking immediate initial steps toward virtual elimination for substances that are found to be persistent, bioaccumulative and inherently toxic.

The ultimate goal however is to strengthen the knowledge base of the Act, and the Committee has made many recommendations regarding this. As was stated in the prologue, our system of chemical risk management is only as strong as the foundation of knowledge upon which it is built.

LIST OF RECOMMENDATIONS

Recommendation 1

That the government publish biennially, in electronic and hard copy formats, a comprehensive state of the environment report to provide timely, accurate and accessible environmental information, integrated with socioeconomic factors, to improve decision-making and support progress towards sustainability.

Recommendation 2

That the government amend Part 5 of CEPA 1999 to state that a guiding principle in controlling toxic substances is that industry has the responsibility of demonstrating, to the satisfaction of the Minister, that the risks of new and existing substances of concern are acceptable.

Recommendation 3

That Environment Canada , in assessing chemicals on the DSL as well as any others yet to undergo an environmental assessment, recognize that chemicals may be persistently present because of their continuous release into the environment.

Recommendation 4

That the government amend CEPA 1999 to ensure that information regarding manufacture, import and use of substances is updated on a yearly basis.

Recommendation 5

That the government amend s. 72 and s. 46 of CEPA 1999 in order that it may obtain information on any substances of concern so that decisions regarding substances are made on the most comprehensive data set possible.

Recommendation 6

That, should REACH come into effect, the government immediately initiate negotiations toward an agreement to gain access to test data submitted under REACH that has been deemed confidential business information. In addition CEPA

1999 should be amended to require that information submitted to REACH on substances imported into Canada be submitted to Canadian authorities.

Recommendation 7

That the government enter into negotiations with other OECD countries to exchange information respecting any substance of concern, and that CEPA 1999 be amended to this end if necessary.

Recommendation 8

That the government amend CEPA 1999 to enable it to require third party verification of data provided by persons under s. 46 or s. 71 of the Act.

Recommendation 9

That the government release complete draft assessments of new substances to notifiers and publish electronically complete draft assessments of existing substances, so that all stakeholders have a better opportunity to respond.

Recommendation 10

That the government facilitate public access to appropriate information by amending CEPA 1999 to make disclosure of confidential test data mandatory in a manner similar to the *Pest Control Products Act*.

Recommendation 11

That the government of Canada provide sufficient funding to enable cooperation between Environment Canada and Statistics Canada to:

- **Produce and publish an annual report critically analysing the results of the NPRI data including trends where possible; and,**

- **To ensure that the quality of NPRI data collected are continually improved to better inform Canadians and help strengthen policies to prevent pollution.**

Recommendation 12

That CEPA 1999 be amended to oblige the Ministers to put in place a permanent biomonitoring study that is representative of the Canadian population, including vulnerable populations.

Recommendation 13

That the government:

- **Amend CEPA 1999 to oblige the Ministers to perform research into the effects of complex mixtures of chemicals on human and environmental health;**

- **Use s.46 and s.71 to require industry to submit information on the effects of complex mixtures; and,**

- **Require information on the cumulative effects of substances with a common mechanism of toxicity in the New Substances Notification Regulations where there is reason to believe that such environmental or human exposures may occur.**

Recommendation 14

That the government add developmental neurotoxicity tests to those required in the *New Substances Notification Regulations* and that such tests also be applied to existing substances of concern.

Recommendation 15

That the government make it a requirement for producers of new and existing substances deemed to be persistent or high production volume to perform chronic toxicity studies on these substances according to OECD Guideline 452, and submit the results to the Ministers as part of the risk assessment.

Recommendation 16

That the government amend CEPA 1999 to ensure:

- **In the case of a screening that determines a substance to be toxic, a timeline of two years from the beginning of the screening assessment to the commencement of an implementation plan; and,**

- **In the case of a screening that determines the need for a full Priority Substance List assessment, a timeline of five years from the beginning of the screening assessment to the commencement of an implementation plan.**

Recommendation 17

That CEPA 1999 be amended in the preamble to include recognition of the need to protect the most vulnerable in our society, particularly children, and that Part 5 be amended to include language similar to the *Pest Control Products Act*, directing that consideration of vulnerable groups take place in the risk assessment process, including an extra ten-times safety factor for children where appropriate.

Recommendation 18

That the government amend CEPA 1999 to add an additional paragraph to the preamble recognizing the need to protect vulnerable ecosystems and that it explore fully its options under s. 330 (3.1) to create regulations with limited geographical application in order to protect the Great Lakes and any other vulnerable ecosystems in Canada.

Recommendation 19

That the government consider amending CEPA 1999 so that substances on the "In Commerce List" are prioritised in a similar way as categorization was done on the Domestic Substance List, while also considering that some of these substances may be persistently present because of their continuous release into the environment.

Recommendation 20

That the government immediately begin:

- **Regulating products containing toxic substances using CEPA 1999 as the principal statute to this end; and,**

- **A review of the *Hazardous Products Act* in order to better coordinate it with CEPA 1999.**

Recommendation 21

That CEPA 1999 be amended by removing the requirement to establish a level of quantification before addition of a substance to the Virtual Elimination List.

Recommendation 22

That the government amend CEPA 1999 to clarify that prohibition regulations are an option toward achieving the objective of virtual elimination.

Recommendation 23

That Environment Canada engage stakeholders in identifying and implementing best practice risk management actions as soon as a risk assessment has begun.

Recommendation 24

That Environment Canada create a formal performance measurement mechanism for pollution prevention plans that will enable their achievements to be measured.

Recommendation 25

That the Commissioner of the Environment and Sustainable Development, in his next performance audit of the management of toxic substances, examine whether or not pollution prevention plans are reducing the creation of pollution.

Recommendation 26

That the government amend CEPA 1999 to include specific instructions to strengthen current efforts by which replacement of toxic substances by suitable alternative substances or technologies are considered in pollution prevention, risk assessment and management, and virtual elimination, including their risks and the technical and economic feasibility of substitution.

Recommendation 27

That the government allot sufficient funds to increase A-Base funding to the Departments of Health and Environment so that CEPA 1999 can be implemented more effectively.

Recommendation 28

That the government consider a provision for fine splitting, similar to that provided for in the *Fisheries Act*, and other intervener funding as means to address the identified financial barriers to public participation. In addition, that the government amend s. 22 (2) of CEPA 1999 so that an environmental protection action may be brought to court if the offence may result, in harm or serious risk of harm to the environment or human, animal, plant life or health.

Recommendation 29

That the government amend s. 10 of CEPA 1999 to clarify that provincial permitting systems may qualify as equivalent, and add that equivalency agreements must contain provisions for monitoring to ensure that their effects are equivalent.

Recommendation 30

That the Department of the Environment create a system to measure and evaluate the role and implementation of the enforcement provisions of CEPA 1999.

Recommendation 31

That the government change Schedule 1 to include the following information pertinent to each substance on it:

- **The subsection of section 64 that was met that triggered listing;**
- **A brief synopsis of the reasons why it is toxic at the doses observed; and,**
- **When available, the risk management tool intended to apply to the substance.**

APPENDIX A
LIST OF WITNESSES

Organizations and Individuals	Date	Meeting
Great Lakes United	2006/05/10	3
Derek Stack, Executive Director		
PollutionWatch		
Kapil Khatter, Director, Health and Environment		
Department of Health	2006/05/15	4
Paul Glover, Director General, Safe Environments Programme		
Department of Justice		
Daniel Blasioli, Senior Counsel		
Department of the Environment		
Cécile Cléroux, Assistant Deputy Minister, Environment Stewardship Branch		
John Moffet, Acting Director General, Systems and Priorities		
Canadian Chemical Producers' Association	2006/05/17	5
Gordon Lloyd, Vice-President, Technical Affairs		
Canadian Consumer Specialty Products Association		
Shannon Coombs, Executive Director, Representative for Formulated Products Industry Coalition		
Mining Association of Canada		
Justyna Laurie-Lean, Vice-President		
Canadian Environmental Law Association	2006/06/05	7
Hugh Benevides, Counsel		
Canadian Strategy for Cancer Control		
Larry Stoffman, Chair, National Committee on Environmental and Occupational Exposures, Prevention Action Group		
Department of the Environment		
John Moffet, Acting Director General, Systems and Priorities		
Ivey Foundation (Toronto)		
Bruce Lourie, President		

Organizations and Individuals	Date	Meeting
Department of Health	2006/06/12	8
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
John Moffet, Acting Director General, Systems and Priorities		
Ontario Medical Association		
Isra Levy, Chief Medical Officer and Director, Office of Public Health, Canadian Medical Association		
John Wellner, Director, Health Policy		
PollutionWatch		
Kapil Khatter, Director, Health and Environment		
Rick Smith, Executive Director, Environmental Defence		
Statistics Canada		
Robert Smith, Director, Environment Accounts and Statistics Division		
Department of Health	2006/06/19	10
Steve Clarkson, Director, Environmental Contaminants Bureau, Safe Environments Program, Healthy Environments and Consumer Safety Branch		
Department of the Environment		
John Moffet, Acting Director General, Systems and Priorities		
Office of the Commissioner of the Environment and Sustainable Development		
Johanne Gélinas, Commissioner		
John Reed, Principal		
Department of Health	2006/06/21	11
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
Mary Taylor, Director, Legislative Governance		
International POPs Elimination Network		
Jack Weinberg, Senior Policy Advisor		

Organizations and Individuals	Date	Meeting
McGill University	2006/06/21	11
Joe Schwarcz, Director, Office for Science and Society		
McMaster University		
Gail Krantzberg, Professor and Director, Dofasco Centre for Engineering an Public Policy		
Canadian Chemical Producers' Association	2006/09/21	12
Gordon Lloyd, Vice-President, Technical Affairs		
Canadian Fertilizer Institute		
Clyde Graham, Vice-President, Strategy and Alliances		
Department of Health		
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
John Moffet, Acting Director General, Systems and Priorities		
PollutionWatch		
Hugh Benevides, Counsel, Canadian Environmental Law Association		
Fe de Leon, Researcher, Canadian Environmental Law Association		
Aaron Freeman, Environmental Defence Canada		
Kapil Khatter, Director, Health and Environment		
Canadian Consumer Specialty Products Association	2006/09/26	14
Shannon Coombs, Executive Director, Representative for Formulated Products Industry Coalition		
Department of Health		
Charles Ethier, Director General, Product Safety Programme		
Pembina Institute		
Matthew Bramley, Director, Climate Change		
Mark Winfield, Director, Environmental Governance		
PollutionWatch		
Hugh Benevides, Counsel, Canadian Environmental Law Association		

Organizations and Individuals	Date	Meeting
Salt Institute of Canada	2006/09/26	14
Al Hamilton, Chemical Business Manager, Sifto Canada		
Michael Teeter, Consultant		
University of Ottawa		
Lynda Collins, Assistant Professor, Faculty of Law		
As individual	2006/10/17	17
Michael Teeter, Principal, Hillwatch Inc.		
Canadian Environmental Law Association		
Kapil Khatter		
Canadian Lung Association		
Barbara MacKinnon, Director, Environmental Research, New Brunswick Lung Association		
Kenneth Maybee, Vice-President, Environmental Issues		
Department of Health		
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
Cynthia Wright, Associate Assistant Deputy Minister, Environmental Stewardship Branch		
Dupont Canada		
Judith McKay, General Counsel		
Environmental Defence Canada		
Aaron Freeman, Director, Policy		
Industry Coordinating Group for CEPA		
Jack Soule, Executive Director		
Canadian Chemical Producers' Association	2006/10/19	18
Gordon Lloyd, Vice-President, Technical Affairs		
Clean Production Action		
Beverly Thorpe, International Director		
Department of Health		
Steve Clarkson, Director, Environmental Contaminants Bureau, Safe Environments Program, Healthy Environments and Consumer Safety Branch		

Organizations and Individuals	Date	Meeting
Department of the Environment	2006/10/19	18
John Arseneau, Director General, Science and Risk Assessment, Science and Technology Branch		
Environmental Defense (U.S.A.)		
Richard Denison, Senior Scientist, Washington, D.C. Office		
Environmental Working Group (U.S.A.)		
Kenneth Cook, President, Washington, D.C. Office		
Industry Coordinating Group for CEPA		
Jack Soule, Executive Director		
Canadian Chemical Producers' Association	2006/10/24	19
Gordon Lloyd, Vice-President, Technical Affairs		
Department of Health		
Steve Clarkson, Director, Bureau of Risk and Impact Assessment		
Department of the Environment		
Cynthia Wright, Associate Assistant Deputy Minister, Environmental Stewardship Branch		
Great Lakes United		
Derek Stack, Executive Director		
International Joint Commission		
Jim Houston, Environmental Adviser		
Joel Weiner, Senior Advisor		
PollutionWatch		
Hugh Benevides, Counsel, Canadian Environmental Law Association		
Kapil Khatter, Director, Health and Environment		
Allergy and Environmental Health Association of Quebec	2006/11/06	23
Michel Gaudet		
Canadian Environmental Law Association		
Kathleen Cooper, Researcher		
Conservation Council of New Brunswick Inc.		
Inka Milewski, Science Advisor		

Organizations and Individuals	Date	Meeting
Department of Health	2006/11/06	23
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
Cynthia Wright, Associate Assistant Deputy Minister, Environmental Stewardship Branch		
Environmental Defence Canada		
Aaron Freeman, Director, Policy		
Imperial Oil Limited		
Roger Keefe		
University of Alberta		
Donald Spady, Principal Investigator, Department of Pediatrics		
University of Ottawa		
Daniel Krewski, Professor and Director, McLaughlin Centre for Population Health Risk Assessment, Institute of Population Health		
Michelle Turner, Epidemiologist / Research Coordinator, McLaughlin Centre for Population Health Risk Assessment, Institute of Population Health		
Michael G. Tyshenko, Risk Analyst, McLaughlin Centre for Population Health Risk Assessment, Institute of Population Health		
Canadian Consumer Specialty Products Association	2006/11/20	26
Shannon Coombs, President		
Canadian Environmental Law Association		
Jessica Ginsburg, Counsel		
Kapil Khatter		
Canadian Fertilizer Institute		
Roger Larson, President		
Department of Health		
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
John Arseneau, Director General, Science and Risk Assessment, Science and Technology Branch		

Organizations and Individuals	Date	Meeting
Canadian Chemical Producers' Association	2006/11/27	30
Gordon Lloyd, Vice-President, Technical Affairs		
Department of Health		
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
Cynthia Wright, Associate Assistant Deputy Minister, Environmental Stewardship Branch		
Great Lakes United		
Derek Stack, Executive Director		
Salt Institute		
Richard Hanneman, President		
Michael Teeter, Consultant		
Sierra Legal Defence Fund - Toronto		
Robert Wright, Counsel		
Department of Health	2006/12/04	32
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
Cynthia Wright, Associate Assistant Deputy Minister, Environmental Stewardship Branch		
Environmental Education Association of the Yukon		
Gregory Heming, President		
Forest Products Association of Canada		
Catherine Cobden, Vice-President, Environment		
Reach for Unbleached Foundation		
Delores Broten, Senior Policy Advisor		
Canadian Environmental Law Association	2006/12/11	36
Kathleen Cooper, Senior Researcher		
Department of Health		
Paul Glover, Director General, Safe Environments Programme		
Department of the Environment		
Cynthia Wright, Associate Assistant Deputy Minister, Environmental Stewardship Branch		

Organizations and Individuals	Date	Meeting
PollutionWatch	2006/12/11	36
Kapil Khatter, Director, Health and Environment		
As individual	2006/12/12	37
Gail Krantzberg, McMaster University		
Joe Schwarcz, McGill University		
Canadian Chemical Producers' Association		
Gordon Lloyd, Vice-President, Technical Affairs		
Canadian Institute for Environmental Law and Policy		
Maureen Carter-Whitney, Research Director		
Anne Mitchell, Executive Director		
Department of Health		
Steve Clarkson, Director, Bureau of Risk and Impact Assessment		
Department of the Environment		
John Moffet, Acting Director General, Systems and Priorities		
Formulated Products Industry Coalition		
Shannon Coombs		
PollutionWatch		
Aaron Freeman, Environmental Defence Canada		
Kapil Khatter, Director, Health and Environment		
Salt Institute of Canada		
Michael Teeter, Consultant		
Save the Oak Ridges Moraine Coalition		
Anna Tilman, Chair		

APPENDIX B
LIST OF BRIEFS

Organizations and Individuals

Allergy and Environmental Health Association - Ottawa Branch

Allergy and Environmental Health Association of Quebec

Bromine Science and Environmental Forum

Canadian Association of Petroleum Producers

Canadian Association of Physicians for the Environment

Canadian Cancer Society

Canadian Chamber of Commerce

Canadian Chemical Producers' Association

Canadian Consumer Specialty Products Association

Canadian Environmental Law Association

Canadian Environmental Network

Canadian Federation of Agriculture

Canadian Fertilizer Institute

Canadian Institute for Environmental Law and Policy

Canadian Labour Congress

Canadian Lung Association

Canadian Medical Association

Canadian Strategy for Cancer Control

Canadian Water and Wastewater Association

Chemical Sensitivities Manitoba

City of Toronto

Clean Production Action

Conservation Council of New Brunswick Inc.

Organizations and Individuals

Department of Health

Department of the Environment

Donovan, Patty

Dupont Canada

Environmental Defence Canada

Environmental Defense (U.S.A.)

Environmental Protection Review Canada

Formulated Products Industry Coalition

Front commun québécois pour une gestion écologique des déchets

Grand Council of the Crees

Great Lakes United

Industry Coordinating Group for CEPA

Inuit Circumpolar Council

Inuit Tapiriit Kanatami

Ivey Foundation (Toronto)

Learning Disabilities Association of Canada

McGill University

McMaster University

Mining Association of Canada

Office of the Commissioner of the Environment and Sustainable Development

Paterson, Noël

Pembina Institute

Pollution Probe

PollutionWatch

Organizations and Individuals

Reach for Unbleached Foundation

Region of Peel

Robinson, Cindy

Saint John Citizens Coalition for Clean Air

Salt Institute of Canada

Save the Oak Ridges Moraine Coalition

Sierra Legal Defence Fund - Toronto

Sinclair, Kevin

Statistics Canada

Stop the Hogs Coalition

TerraChoice Environmental Marketing

Tippett, P.

Transboundary Watershed Alliance

Under the Sleeping Buffalo Research

University of Alberta (Department of Pediatrics)

University of Ottawa

APPENDIX C: SUGGESTED TOPICS AND POTENTIAL MEETING OUTLINE FOR THE REVIEW OF CEPA, 1999

Suggested Topics

	Topics	Specific Issues
A.	Measuring success: pollution prevention	1. What are the goals of CEPA and how are they measured? 2. How can Canadians be best informed about the state of the environment? 3. How can monitoring of exposure to toxic substances be improved?
B.	International activities	1. What are other jurisdictions doing with respect to the management of toxic substances and what lessons could be learned for the Canadian context?
C.	Assessment of substances	1. Should the *Act* be changed to accommodate the different inherent toxicities and uses of chemicals? o use of the word “toxic” o chemicals under the *Food and Drug Act* o carbon dioxide 2. How should the Government manage substances highlighted in the screening of the Domestic Substances List?

Suggested Topics

	Topics	Specific Issues
		3. What aspects of the *Act* and its implementation can be changed to reduce the time required for assessments? 4. How should assessments take into account vulnerable populations and ecosystems? 5. Should the *Act* enable other jurisdictions' risk assessments to be recognized? 6. How should the precautionary principle be applied to assessing substances? 7. What information should the government require of industry and who should assess the information? 8. What level of public disclosure should there be regarding data and its analysis? 9. Where should the burden of proof lie?
D.	Managing substances	1. What are the appropriate tools to apply to substances that pose various risks to the environment and human health? 2. What aspects of the *Act* and its implementation can be changed to reduce the time required to put in place management tools once a substance has been assessed?

Suggested Topics

	Topics	Specific Issues
		3. What does Virtual Elimination mean (including limits of quantification) and how could it be put into practice? 4. How should the precautionary principle be applied to managing substances? 5. Does enforcement of the *Act* need to be improved? 6. Do the Public Participation (civil suits) aspects need to be improved?
E.	Cooperation with the provinces, territories and aboriginal peoples	1. What is the role of the National Advisory Committee, particularly in relation to the Canadian Council of Ministers of the Environment, and how can it be improved? 2. How can aboriginal points of view be better integrated into decision making? 3. What is the role of Equivalency Agreements and how can they be used most effectively?

F.	Interdepartmental cooperation and legislative overlap	1. Are the roles of different departments sufficiently well identified to ensure that the department with the right expertise and capacity is performing the correct tasks? 2. Is there sufficient legislative clarity within CEPA and between CEPA and other federal Acts related to the management of toxic substances to ensure efficient control of toxic substances at the federal level?

REQUEST FOR GOVERNMENT RESPONSE

Pursuant to Standing Order 109, the Committee requests that the government table a comprehensive response to this Report.

A copy of the relevant Minutes of Proceedings *(Meetings Nos. 3 to 5, 7, 8, 10 to 12, 14, 17 to 19, 23, 26, 30, 32, 36, 37, 40, 43, 44, 46, 50, 51 and 52)* is tabled.

Respectfully submitted,

Bob Mills, MP
Chair

Supplementary Report - Bloc Québécois
The Canadian Environmental Protection Act, 1999
(CEPA 1999)

Standing Committee on Environment and Sustainable Development: *The Canadian Environmental Protection Act, 1999* – Five-Year Review: Closing the Gaps.

The Bloc Québécois believes that environmental issues are central concerns for Quebecers and Canadians today. Be it the fight against global warming, the quality of our water and the air we breathe, or the evaluation and use of toxic substances, the environment has clearly become an inescapable topic.

In view of these concerns and environmental challenges, the Bloc Québécois recognizes the Committee's efforts to make the federal government fill certain gaps in the *Environmental Protection Act*, *1999*, even though this would not address the duplication of efforts in the areas of environmental protection arising from the Act.

To this effect, the Bloc Québécois stresses that the Committee has adopted Recommendation 7, "That the government should enter into negotiations with other OECD countries to exchange information respecting any substance of concern and that the CEPA be amended to this end if necessary."

In addition, the Bloc Québécois would like to mention that it supports Recommendation 17, "That CEPA 199 be amended in the preamble to include recognition of the need to protect the most vulnerable in our society, particularly children, and that Part 5 be amended to include language similar to the *Pest Control Products Act,* directing that consideration of vulnerable groups take place in the risk assessment process, including an extra ten-times safety factor for children where appropriate."

Finally, the Bloc Québécois agrees with the Committee on its recommendation that currently used substances be re-evaluated using newly available technologies and data.

However, although the Bloc Québécois voted in favour of the report as presented to the Environment Committee on April 20, 2007, it would not grant its complete approval without further clarifications of some of the recommendations and some additional elements.

Jurisdictional powers

The environment is a complex issue, and the Bloc Québécois believes that the government of Quebec has a key role to play in this area. Thus, the federal government should be mindful not to infringe on Quebec's environmental jurisdiction.

Let us recall that the Bloc Québécois voted against Recommendation 18, "…that [the government] explore fully its options under s. 330 (3.1) to create regulations with limited geographical application in order to protect the Great Lakes and any other vulnerable ecosystems in Canada."

This recommendation opens the door to federal intrusion in designating sensitive ecosystems located in Quebec without consulting the Quebec government. The position of the Bloc Québécois is that this recommendation should be narrow in scope so as not to constitute an encroachment on Quebec's right to manage its own territory and designate its own sensitive areas.

Federal responsibilities

Aside from Recommendation 18, the Bloc Québécois feels that the recommendations, although addressing real problems, have largely missed their mark. This is particularly true for Recommendation 27, "That the Government allot sufficient funds to increase A-Base funding to the Departments of Health and Environment so that CEPA 1999 can be implemented more effectively."

Although it is true that Environment Canada and Health Canada should be provided with adequate, or better, A-base funding, the first step should be the reallocation of funds within the ministries themselves. Above all, this should only be done after a thorough analysis of needs and priorities.

On this subject, as noted by the Auditor General of Canada in November 2006, Health Canada "does not know if it is fully meeting its responsibilities as the regulator of drug products, medical devices, and product safety."

Yet Health Canada has redoubled its efforts to develop Canada-wide strategies and has created new agencies that do nothing but duplicate what is already being done in Quebec and the other provinces.

Instead of attempting to encroach on the jurisdictions of Quebec and the other provinces, Health Canada and Environment Canada should focus on their base activities, particularly the evaluation of toxic substances, rather than stretching their funds and energies.

The Bloc Québécois is in no doubt that if these ministries would stick to their areas of jurisdiction, they could adequately finance their essential base activities.

The precautionary principle

In conclusion, the Bloc Québécois feels that the precautionary principle is glaringly absent from this report. An important amendment should have been proposed to the *Environmental Protection Act, 1999*, as a recommendation, in order to formally include the precautionary principle in CEPA 1999.