

Perfluorinated Substances and the *Canadian Environmental Protection Act (CEPA)*

**Submission to the Senate Standing Committee for
Energy, the Environment and Natural Resources**

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PollutionWatch

www.PollutionWatch.org

**PollutionWatch is a joint project of Environmental Defence and
the Canadian Environmental Law Association**



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Perfluorinated substances are a group of chemicals in widespread usage as stain, grease, and water repellents, sizing agents and leveling agents. Though production started in the 1940s, it was not until the 1990's that the scientific community became aware of their persistence, ability to bioaccumulate and potential toxicity.

The federal government has, to date, focused on the two perfluorinated carboxylic acids, PFOS and PFOA and the substances that break down to these acids, though additional fluorotelomer-based substances have been regulated under the New Substances Notification regime. A look at the regulation of perfluorinated chemicals can give us some insight into the functioning of CEPA.

PollutionWatch, a joint project of the Canadian Environmental Law Association and Environmental Defence, has a number of key CEPA-related issues that can be highlighted through a discussion of perfluorinated.

1. Reverse Onus

Environment Canada officials pointed out in their initial testimony on perfluorinated substances that there is much they do not know about what perfluorinated are in use and what they are breaking down to: "we are still finding more and more and more of the subtly changed chemicals that are in use or perhaps generated through the degradation of the product."¹

As a class of substances of concern, manufacturers and importers should be responsible for reporting their use of perfluorinated substances and for ensuring there are enough data demonstrating their use is safe. A shift in culture is needed where industry becomes true stewards of their chemicals and their products throughout their life cycle including use, manufacture or import to disposal.

The onus should be on manufacturers to show that all the perfluorinated in use and their breakdown products are not persistent, not bioaccumulative and not harmful.

2. Protecting Children's Health

Children are a vulnerable population requiring extra care when assessing their risk and taking precautionary action to ensure they are protected. Children are susceptible because they are developing, because their exposures are greater for their body weight and because they have a long life of potential exposure ahead of them.

The *Pest Control Products Act* (PCPA) has special provisions to ensure that children are adequately protected. The Act requires the use of a special safety factor in risk

¹ Senate Standing Committee on Energy, the Environment and Natural Resources Committee Meeting, February 1, 2007.

assessments to account for children's vulnerability. This safety factor is similar to that required in the United States through the *Food Quality Protection Act*.

CEPA should require the use of a safety factor at least as large as that in the PCPA to explicitly protect children during the assessment of chemicals.

3. Cumulative Assessment

CEPA generally takes a substance-by-substance approach to assessing and managing chemicals, the assessment done without the context of what similar exposures are occurring. At times, classes of chemicals and mixtures are dealt with together but the combined effects of these multiple exposures are not fully accounted for in risk assessments. Two chemicals that have similar or complementary mechanisms of action may be not only additive in their effects but synergistic, meaning they can enhance each other's impacts.

The *Pest Control Products Act* requires that pesticide assessments take into account, where a group of pesticides share a common mechanism of toxicity, the aggregated exposure of these pesticides and their combined risk.

CEPA should be amended to include a clause similar to that of the *Pest Control Products Act* that requires that aggregate exposures and cumulative risk assessments be done on substances that have a similar mechanism of toxicity.

4. Timelines

Action in Canada has lagged behind the United States in dealing with the perfluorinated substances of most recent concern. The Americans imposed a ban on PFOS in 2000, with some exceptions for essential uses. In Canada by contrast, though PFOS was proposed to be toxic in October 2004, by 2007 we now have only proposed regulations. This delay occurred despite much public pressure to deal with these persistent and bioaccumulative substances. Management of substances can often move slower when there is less public attention.

The sluggishness of the regulatory process in CEPA can be attributed to the lack of concrete timelines at certain stages of the process and timelines at other stages that are too long. In addition, a chemical must go to cabinet three times from the beginning of its assessment to the realization of a regulation. Each of these cabinet decisions can significantly slow the process.

The assessment and management of a substance under CEPA should be completed within a 3.5 year timeline (see attached slide). The requirement for cabinet to approve the scientific decision to list a substance as toxic should be removed.

5. Vulnerable Ecosystems

CEPA explicitly takes an ecosystem approach. It is recognized that there are parts of the country that are of greater concern due to the level of pollution that occurs or the level of pollution that is created. The North is one of those regions due to the phenomenon of long range transport of persistent chemicals that results in their deposition and greater concentration in cold, northern and high-alpine areas.

The Great Lakes St. Lawrence Basin is another vulnerable region requiring attention. Facilities in the basin emit 45% of Canada's toxic air pollutants.² The existence of a Great Lakes Water Quality Agreement and the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem is an acknowledgement of this area's importance.

It is important that CEPA place special attention on these vulnerable ecosystems. Higher levels of perfluorinate pollution in these areas may be putting the environment and people's health at greater risk. Levels of classes of potentially hazardous compounds like perfluorinates should be measured specifically in these vulnerable regions.

CEPA should include a special section for vulnerable regions like the Great Lakes St. Lawrence to ensure better surveillance and research, and more detailed reporting and interventions to track and address the extent of the pollution problems. CEPA should also specifically state that it is the implementing Act for the Great Lakes Water Quality Agreement.

6. Confidentiality

In order for government officials to adequately assess the dangers of any chemical they must have access to the research that has been done. Indeed, Environment Canada has testified to this committee that the lack of clarity around the confidentiality of information hampers their work.³ Likewise, a lack of access to health and safety information prevents the public from ensuring that risk decisions are being made in their interests.

Canada has committed internationally through the Stockholm Convention on Persistent Organic Pollutants and the Strategic Approach to International Chemicals Management to ensure that information on substances relating to the health and safety of humans and the environment is not regarded as confidential. The *Pest Control Products Act*, as well, separates test data from other confidential business information and makes it accessible to the public.

² Great Lakes Great Pollution: Canadian Pollutant Releases and Transfers to the Great Lakes, PollutionWatch, June 2005.

³ Senate Standing Committee on Energy, the Environment and Natural Resources Committee Meeting, February 1, 2007.

CEPA should follow the PCPA's example and declare all health and safety test data publicly accessible. Further, the criteria for defining confidential business information should be made explicit in the Act as well as the notifiers' responsibility for substantiating their confidentiality claim.

7. Consumer Products

The federal government has a poor track record in regulating toxic substances in consumer products. The limited action that has occurred has been through the outdated *Hazardous Products Act* (HPA). The HPA takes a laborious, product-by-product approach to dealing with toxic substances in products. As a result, there are many products that remain on the market with dangerous levels of lead, mercury and other hazardous chemicals.

CEPA gives the government the power to regulate substances in products. This has been demonstrated in rare cases by the use of prohibition regulations that include the use of a chemical in a product. In the case of perfluorinated substances, regulations for PFOS have been proposed that prohibit the manufacture, use, sale and import of PFOS, including manufactured items containing the chemical. The regulations do include temporary exemptions for some classes of consumer products. Nevertheless, PFOS is a reasonable example of how CEPA can be used to deal with hazardous chemicals in products.

CEPA should be the primary tool for regulating toxic substances in consumer products rather than the *Hazardous Products Act*.

8. Virtual Elimination

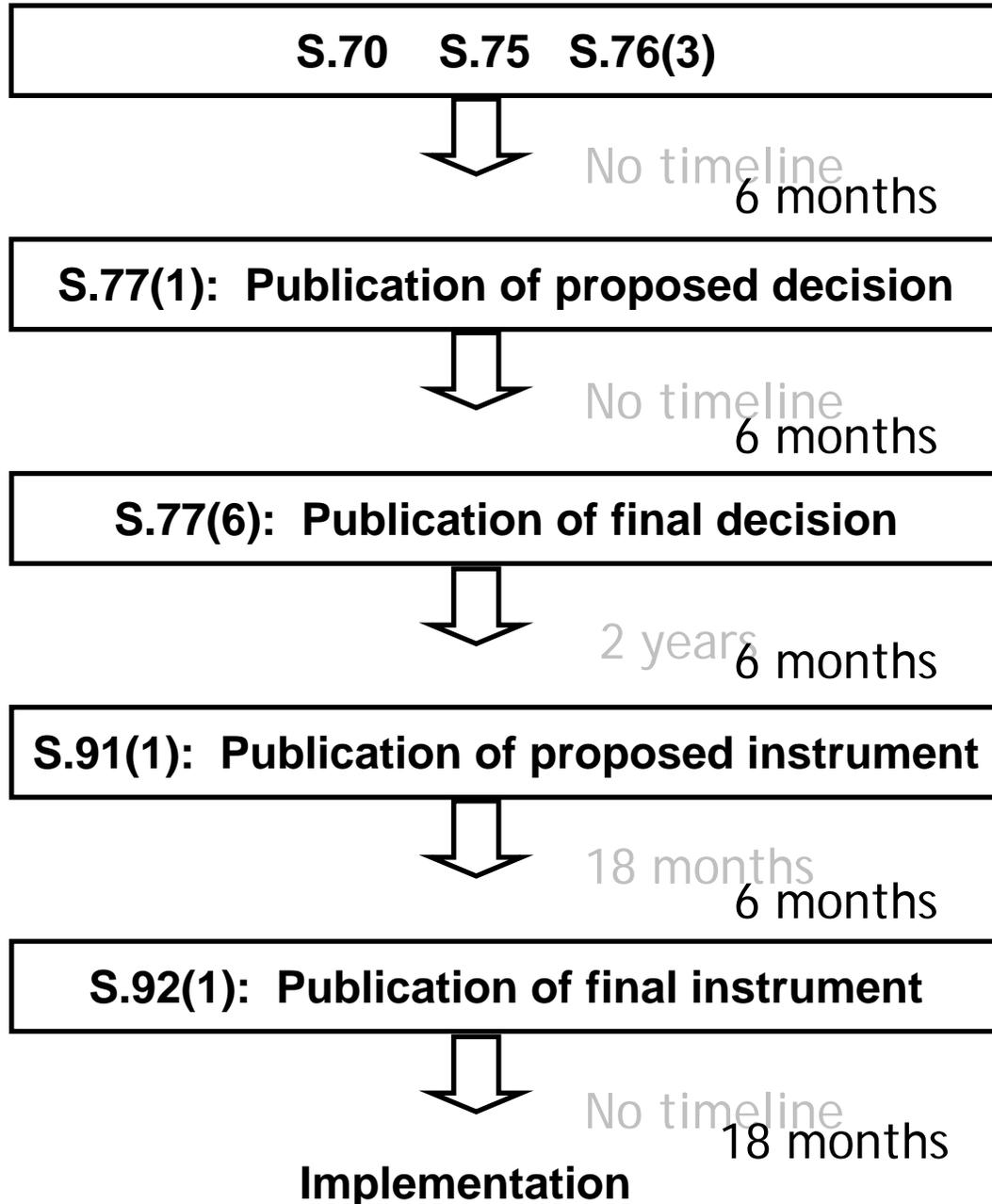
Virtual elimination is an important but hardly used tool within CEPA. Hampered by the need to develop a minimum Level of Quantification before elimination can proceed, the mechanism has now only been used for one substance. In addition, the regulatory cutoffs for virtual elimination do not work well for some perfluorinated chemicals and other substances of emerging concern.

Virtual elimination is the centerpiece of pollution prevention and essentially means stopping the production, use, release and movement of a hazardous substance. The narrow and technically difficult usage of virtual elimination presently in CEPA is ineffective.

Virtual elimination should be extended to include tools like prohibition that can accomplish the virtual elimination goals. The need for a level of quantification should be removed and the criteria broadened to capture more toxic substances.

Proposed
Timelines

3.5 years



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