

January 12, 2006

Sent by Electronic Mail

Greg Hammond
New Substances Branch
Environment Canada
351 St. Joseph Blvd.
Gatineau, QC K1A 0H3
greg.hammond@ec.gc.ca

*RE: Comments regarding Canadian Environmental Protection Act, 1999
Assessment Reports for Four Fluorotelomer Based Substances: New Substances Evaluation
Reports for NSN# 12763 and 12798,
NSN# 12863, and NSN#13211 and 13395*

Dear Mr. Hammond,

Thank you for the opportunity to submit our comments on the assessment of the four fluorotelomer based substances to the New Substances Branch.

Based on the findings of the assessments that the four fluorotelomer based substances would be a source of perfluorocarboxylic acids (PFCAs), and the recommendations of the New Substances Branch with regard to the regulation of New Substance Notification #13211 and 13395, **Environmental Defence recommends a proposal for regulations that permanently ban the importation and manufacture of all four fluorotelomer based substances.** Such regulations should be imposed prior to the expiration of the temporary prohibitions under the *Canadian Environmental Protection Act* (CEPA, 1999), on June 23, 2006 for three of the substances, and January 17, 2007 for the fourth.

As outlined in the assessment reports, the fluorotelomer based substances transform into PFCAs in the environment, and members of this class of chemicals are known to be persistent and suspected to be bioaccumulative, subject to long-range transport (via a precursor), widespread throughout Arctic biota, associated with adverse effects in animals, and showing a trend of increasing concentrations in Arctic mammals.

In the New Substances Evaluation Report for New Substance Notification #13211 and 13395, it is recommended that “the importation or manufacture of this new substance be prohibited” (p. ii). This recommendation should be extended to the New Substance Notifications #12763 and 12798, and 12863, since all of the substances under assessment were found to have similar significant adverse effects on the environment and human health.

The Evaluation Reports for all four substances conclude that each has the potential to cause adverse health effects in wildlife and humans, and that each warrants concern for the

environment. Based on the assessments, all the substances are suspected of being “toxic” to the Canadian environment according to Section 64(a) of the CEPA(1999) and to human health according to Section 64(c) of CEPA (1999). Also, it is noted that because of the widespread use of the materials that contain these polymers, potential control measures to contain polymers of this type are not possible, and environmental remediation efforts would be extremely difficult.

New Evidence: Perfluorinated Chemicals Contaminate Canadians

While the assessment reports for the four fluorotelomer based substances acknowledge widespread and increasing contamination of the Arctic by this class of chemicals, there are studies that also document the presence of chemicals in the same class in people across Canada and internationally; one study in particular notes higher concentrations in children as compared to their older family members.

In November 2005, Environmental Defence released the findings of the first cross-Canada study to measure levels of perfluorooctane sulfonate (PFOS) in people (PFOS is a substance similar to the fluorotelomer based substances). In the study, PFOS was detected in all 11 Canadians tested, at a median concentration of 10 ug/L, with a range of 6.9 ug/L to 30 ug/L;ⁱ these findings are consistent with international studies on PFOS levels in people.ⁱⁱ Since this chemical was detected in all volunteers, the study results suggest that PFOS contamination may be widespread in Canada, and we would suspect similar findings for other chemicals in the same class.

In 2004, the World Wildlife Fund (WWF) tested seven families (comprising 33 individuals) in the United Kingdom for 104 chemicals, including seven perfluorinated substances (both perfluoroalkyl sulfonates and perfluorocarboxylic acids). The findings of the WWF study showed that the children were often contaminated by higher numbers and levels of ‘newer’ chemicals, such as perfluorinated chemicals, than their parents or even their grandparents.ⁱⁱⁱ Given the sensitivity of children’s developing systems, increased levels and numbers of chemicals suspected of being toxic is cause for concern.

The presence of these types of substances in people, and the finding that they may be accumulating in higher levels in children, should further inform the recommendation for regulations permanently prohibiting any substances in or related to the perfluorinated class of chemicals, and particularly the four fluorotelomer based substances identified in the CEPA assessment reports.

Regulating Substances of the Same Class on the Domestic Substances List (DSL)

In addition to calling for regulations permanently banning the four substances under assessment, Environmental Defence recommends extending the findings and recommendations of the assessment reports to all chemicals of the same class, including those on the DSL, and implementing expedited regulations for the phase-out of similar substances on the DSL, such as perfluorooctane sulfonate and its salts and precursors (which have also been found to be ‘toxic’ as defined by Section 64 of CEPA and recommended for virtual elimination by Environment Canada and Health Canada’s Screening Assessment Reports^{iv}).

Currently, as stated in the ‘Context of the decisions for the Assessment Reports’,

The decision by the Minister to prohibit these specific fluorotelomer based substances does not extend to substances listed on the DSL. As a consequence, the decisions do not impede or restrict the import or manufacture of any existing fluorotelomer based substance. These decisions do not represent a final conclusion on fluorotelomer based substances.

This excerpt illustrates the disconnection between the New Substances Program and the DSL, which allows chemicals on the DSL to be continually manufactured and imported, while new chemicals of the same class are restricted based on findings revealed through the assessment process of the New Substances Program.

To effectively protect the Canadian environment and the health of people from the adverse effects of toxic chemicals, there is a need to establish an effective mechanism to share assessments between the New Substances Notification Program and the Domestic Substances List (DSL), so that when new chemicals are assessed under the New Substance Notification Program, the findings of their assessment and any regulations imposed as a result will be applied to chemicals of the same class on the DSL.

Regulating Similar and Identical Substances Imported Through Consumer Products

Similarly, there is a disconnection between CEPA in general, and the DSL and New Substances programs and the *Hazardous Products Act*, whereby, for example, substances that are prohibited for manufacture or import under CEPA may continue to be imported through consumer products that contain those substances. With regard to fluorotelomer based substances and the group of perfluorinated chemicals as a whole, this is a real concern, as these polymers are often not manufactured in Canada, but are imported in significant amounts through products from the U.S. and other markets. Once again, there is a need to create effective coordination between CEPA and the *Hazardous Products Act*, so that when a substance is prohibited or otherwise regulated under CEPA, consumer products containing that substance will be subject to proportionate regulations that achieve the same goal. An appropriate regulatory process will protect consumers from unwanted exposure to substances identified as toxic by CEPA. In the case of, perfluorinated chemicals, their use in consumer products has risen dramatically and the general public is largely unaware that they may be receiving frequent low-level exposures from a variety of commonly used products.

While we recognize that the assessment and evaluation processes under the New Substances Program have, at present, a limited scope through which all of our concerns may not be addressed, we do hope that our comments will inspire all departments responsible for toxic substances, either through *CEPA*, the *Hazardous Products Act* or other Acts, to work to harmonize the separate Acts, to ensure that when a substance is identified as toxic that substance and all other members of its chemical class will be expeditiously subject to the most stringent controls, including, where necessary, phase-outs and bans.

We also expect that under the New Substances Program, the capacity of the Ministers of Health and Environment to implement permanent prohibitions for the four fluorotelomer based substances assessed will be fully used.

Sincerely,



Rick Smith, Ph. D
Executive Director
Environmental Defence

REFERENCES

ⁱ Environmental Defence. (2005, November). [Toxic nation: a report on pollution in Canadians](http://www.environmentaldefence.ca/toxicnation/report/Rev_English%20Web.pdf). Toronto. p.17. Available online at http://www.environmentaldefence.ca/toxicnation/report/Rev_English%20Web.pdf

ⁱⁱ Olsen, G.W. et al. (2003, December). Perfluorooctanesulfonate and other fluorochemicals in the serum of American Red Cross adult blood donors. [Environmental Health Perspectives](#), 111, 16, pp. 1892-1901.

ⁱⁱ Kannan, K. et al. (2004). Perfluorooctanesulfonate and related fluorochemicals in human blood from several countries. [Environmental Science and Technology](#), 38, 17, pp. 4489-4495.

ⁱⁱⁱ WWF-UK. (2004, October). [Contamination: the next generation](http://www.wwf.org.uk/filelibrary/pdf/family_biomonitoring.pdf). p. 4. Available online at http://www.wwf.org.uk/filelibrary/pdf/family_biomonitoring.pdf

^{iv} Environment Canada. (2004, April). Canadian Environmental Protection Act, 1999 (CEPA 1999): Environmental Screening Assessment Report on Perfluorooctane Sulfonate, Its Salt and Its Precursors that Contain the C₈F₁₇SO₂ or C₈F₁₇SO₃ Moiety. pp.20-21.

^{iv} Health Canada. (2004, March 5). Screening Assessment Report—Health: Perfluorooctane Sulfonate, Its Salt and Its Precursors that Contain the C₈F₁₇SO₂ or C₈F₁₇SO₃ Moiety. pp. 8.