

Taylor, Sheree L.

From: Joe Minor |
Sent: August 25, 2012 8:52 PM
To: clerk@hamilton.ca
Subject: PFOS: Minister of the Environment
Attachments: environment.pdf

To: The Mayor and All Members of Council c/o the Clerk

Please include this communication in the next official (publicly accessible) information package for Hamilton City Council.

This attachment contains the response of the federal Minister of the Environment.

Thanks,

Joe Minor

----- Original Message -----

Subject: Thank you for your response re: Environmental Petition #332

Date: Sat, 25 Aug 2012 20:30:18 -0400

From: Joe Minor :

To: Enviroinfo [NCR] <Enviroinfo@ec.gc.ca>, Minister@ec.gc.ca, Minister.moe@ontario.ca, Knapper, Geoffrey (ENE) <Geoffrey.Knapper@ontario.ca>, Satyendra Bhavsar <s.bhavsar@utoronto.ca>, Fox, Glyn ENV:EX <Glyn.Fox@gov.bc.ca>, Macfarlane, Mike ENV:EX <Mike.Macfarlane@gov.bc.ca>, Hanemayer, Vincent C ENV:EX <Vincent.Hanemayer@gov.bc.ca>, droitdauteur.copyright@tpsgc-pwgsc.gc.ca

Dear Minister Kent,

Thank you for your response re: Environmental Petition #332.

For the sake of clarity, your response is reproduced in the attached pdf file.

Of particular interest was the enclosed 82 page study: "Polyfluoroalkyl Compounds: Scientific Literature Review Related to Contaminated Site Remediation".

For the sake of clarity, the title page of this study is reproduced as the last page of the attached pdf file. The report notes that the copyright administrator is PWGSC (so I have copied them on this eMAIL as well).

There are many Canadians outside of the federal government would could benefit from wider public release of this report. One group that comes to mind are provincial environmental officials who are trying to deal with PFC contamination (e.g., flowing off of federally contaminated sites).

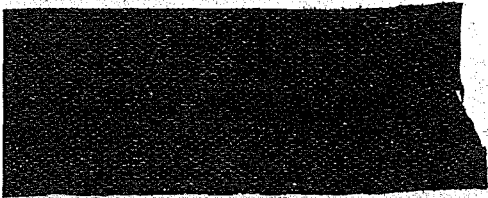
Minister of the Environment



Ministre de l'Environnement

Ottawa, Canada K1A 0H3

JUL 24 2012



Dear Mr. Minor:

I am writing in response to your Environmental Petition no. 332, to the Commissioner of the Environment and Sustainable Development, regarding perfluorocarbon contamination at the Hamilton International Airport.

Enclosed you will find Environment Canada's response to your petition. I understand that the ministers of National Defence, Fisheries and Oceans, Transport, Infrastructure and Communities, Health Canada and Public Works and Government Services of Canada, as well as the President of Treasury Board of Canada, will be responding separately to questions that fall under their respective mandates.

I appreciate this opportunity to respond to your petition, and trust that you will find this information helpful.

Sincerely,

The Honourable Peter Kent, P.C., M.P.

Enclosure

c.c.: The Honourable Peter McKay, P.C., Q.C., M.P.
The Honourable Keith Ashfield, P.C., M.P.
The Honourable Denis Lebel, P.C., M.P.
The Honourable Leona Aglukkaq, P.C., M.P.
The Honourable Tony Clement, P.C., M.P.
Mr. Scott Vaughan, Commissioner of the Environment
and Sustainable Development

Canada

**Environment Canada's Response to Environmental Petition no. 332,
concerning a request for federal assistance in dealing with
perfluorocarbon (PFC) contamination
(including PFOS and PFECHS) at the
Hamilton International Airport**

Question 2: Will the federal government (including Transport Canada, Environment Canada, and any other departments that might have relevant information (e.g., the Pesticide Management Regulatory Agency?)) please use their technical expertise to help us understand what PFCs were used at the airport after ownership was transferred?

Answer: Environment Canada has no responsibility for the property, as the land in question is the property of the Regional Municipality of Hamilton-Wentworth.

However, the study by de Solla et al (see Question 3) revealed that PFCs were greatly elevated in biota and water in the upper Welland River immediately downstream of the airport. Because of the persistence and resistance to breakdown of PFCs, it is not possible to determine when they would have been deposited in the upper Welland River.

Question 3: Will the federal government allow the technical and scientific expertise of its scientists (e.g., at Environment Canada) to help with determining the other sources of PFC pollution at the Hamilton International Airport?

Answer: Environment Canada has no responsibility for the property, as the land in question is the property of the Regional Municipality of Hamilton-Wentworth.

However, Environment Canada's Science and Technology Branch reported the results of analysis of water, turtle blood plasma, fish and insect samples in a publication by de Solla et al (de Solla, S.R., De Silva, A.O., Letcher, R.J. Highly elevated levels of perfluorooctane sulfonate and other perfluorinated acids found in biota and surface water downstream of an international airport, Hamilton, Ontario, Canada. Environ. Intern. 2012, 39: 19-26). That study showed that a wide range of PFCs, particularly perfluorooctane sulfonate (PFOS), were elevated in water downstream of the airport, decreasing with distance from the airport.

Of particular interest is the PFC compound perfluoroethylcyclohexane sulfonate (PFECHS), which was also elevated in water and amphipods in the Upper Welland River and Lake Niapenco. Recently, PFECHS was measured by another Environment Canada scientist in the turtle plasma collected as part of the study.

PFECHS is not registered for use in Canada. Nevertheless, it has been found in lake trout and surface waters of all the Great Lakes. Although higher levels of PFECHS were found in turtle plasma just downstream of the Hamilton International Airport, it was also detectable in adjacent streams, Hamilton Harbour and tributaries feeding Lake Ontario, suggesting other sources in the Great Lakes Basin.

Question 4: Will the government of Canada review its “PERFLUOROCTANE SULFONATE VIRTUAL ELIMINATION ACT” with a view to increasing its effectiveness?

Answer: The *Perfluorooctane Sulfonate Virtual Elimination Act* requires the ministers of the Environment and of Health to add PFOS and its salts to the *Virtual Elimination List* compiled under subsection 65(2) of the *Canadian Environmental Protection Act, 1999* within nine months after the coming into force of the Act. The *Regulations Adding Perfluorooctane Sulfonate and Its Salts to the Virtual Elimination List* came into force on January 13, 2009, and fulfilled the requirements of the Act by adding PFOS and its salts to the *Virtual Elimination List*. The *Perfluorooctane Sulfonate Virtual Elimination Act* is therefore not expected to be reviewed, as it has achieved its objective.

In terms of increasing the effectiveness of the Act, Petition 332 states:

The PFOS Virtual Elimination Act could be greatly improved if it “identified the level of quantification” and if it published “regulations prescribing the quantity or concentration of the substance that may be released into the environment” (as required by CEPA). The proof that the act has been made meaningful will come when regulations are passed and management actions taken that actually move Canada towards virtual elimination.

PFOS and its salts are used in a number of different ways. Therefore, as releases can arise from many widely dispersed sources, the best approach to managing the risks associated with these substances is to prohibit their manufacture, import, use and sale. This will effectively eliminate all sources of exposure from PFOS and its salts, including releases from point sources. The *Perfluorooctane Sulfonate and its Salts and Certain Other Compounds Regulations* (PFOS Regulations) came into force on May 29, 2008. These regulations reduce releases of PFOS to the environment by prohibiting the manufacture, import, sale, offer for sale or use of PFOS, as well as products containing these substances, with a limited number of exemptions. Two of these exemptions, which are time limited and will expire on May 29, 2013, include the use of PFOS in fume suppressants and the ongoing use of stockpiles of aqueous firefighting foams containing PFOS. The PFOS Regulations are consistent with

actions in other jurisdictions, including the United States and the European Union.

PFOS and its salts are persistent organic pollutants (POPs), which means that they are toxic, persist in the environment, accumulate in living organisms and can be transported great distances where they tend to concentrate in colder climates such as Canada's Arctic. Recognizing the need to also manage sources of PFOS from outside Canada's borders, the Government of Canada has signalled a commitment to international action on PFOS by ratifying the addition of this substance to two international agreements, the Protocol on Persistent Organic Pollutants under the Convention on Long-range Transboundary Air Pollution and the Stockholm Convention on Persistent Organic Pollutants. In addition to obligations to restrict the production and use of PFOS, the Stockholm Convention has a programme of work under way that is evaluating alternatives to the use of PFOS in open applications, such as firefighting foams.

As noted, the limited exemptions under the PFOS Regulations will expire in May 2013. A review of the few remaining exemptions, consisting of the use of PFOS in aviation hydraulic fluid; photoresists or antireflective coatings for photolithography processes; and photographic films, papers and printing plates can be expected. As part of this review, which will be used to further inform Canada's risk management actions on PFOS, findings from the Stockholm Convention on the evaluation of potential alternatives will be taken into consideration.

For the full text of the PFOS Regulations and any other information related to the management of PFOS, please consult Environment Canada's website at www.ec.gc.ca/toxiques-toxics/Default.asp?lang=En&n=98E80CC6-1&xml=ECD5A576-CEE5-49C7-B26A-88007131860D

Question 5: Will the federal government (i.e., the Department of Fisheries and Oceans) please investigate whether or not the toxic mess (both PFC and other toxic materials) that runs off of airport property and into the Welland River constitutes a harmful alteration, disruption or destruction (HADD) of fish habitat or any other violation of the Fisheries Act?

Answer: Further to Fisheries and Oceans Canada's response to this question, it is worth noting that a researcher from the Wildlife and Landscape Science Directorate of Environment Canada's Science and Technology Branch is currently conducting a long-term exposure study to determine the uptake, accumulation and effects of PFOS on the Snapping turtle. This is the native turtle species in which this compound was noted at very high levels in a reservoir downstream of Hamilton International Airport in 2009, and is a relevant bioindicator species for this study. This study will be completed in early fall 2012.

However, preliminary results will be made available by December 2012, and the work will be published soon after in peer-reviewed scientific literature.

Question 8: Will the federal government (Transport Canada, Public Works and Government Services Canada, Real Property Institute of Canada, Environment Canada) please use its experience with contaminated sites and their cleanup to assist with the clean up of the toxic mess at Hamilton International Airport?

Answer: The federal government has established the \$3.5-billion Federal Contaminated Sites Action Plan (FCSAP) program to address contaminated sites for which the federal government is responsible. Under FCSAP, Environment Canada plays three roles: it houses the FCSAP Secretariat, which is responsible for the administration of the program; it performs a science-based expert support function to provide advice and training to custodial departments on ecological risk and broader environmental matters; and, as custodian, it manages contaminated sites under the responsibility of Environment Canada.

Environment Canada has not identified any sites with PFOS under its responsibility. Therefore, the Department has not undertaken any remediation activities for this contaminant. However, under the FCSAP program and as part of its expert support role, Environment Canada had a literature review completed by a consultant that provided general insight into the effectiveness of different remediation techniques to address PFCs, and presented recommendations related to the management of sites impacted by PFCs. See the enclosed report *Polyfluoroalkyl Compounds: Scientific Literature Review Related to Contaminated Site Remediation*.

Question 9: Will the federal government (e.g., Transport Canada, the RCAF, Public Works and Government Services Canada, Real Property Institute of Canada, Environment Canada) please make its best efforts to publicly identify other locations contaminated with PFOS?

Answer: Environment Canada has not identified any sites with PFOS under its responsibility.

The Federal Contaminated Sites Inventory (FCSI) is a publicly available database that provides a listing of contaminated sites located on federal real property, as well as sites on non-federal land for which the Government of Canada has accepted full financial responsibility.

The FCSI was developed in response to real property policy obligations to identify and manage federal contaminated sites, and is akin to a land registry database in that it identifies the owner and the geographic location of the sites.

The FCSI was therefore not intended or designed to be a scientific database that captures detailed information about the specific nature of identified contaminants. However, the database can be searched for 22 categories of contaminants, such as pesticides, heavy metals and halogenated hydrocarbons (of which PFCs are part). The PFC group of chemical compounds includes, among others, PFOS and PFECHS. Departments reporting contaminated sites to the FCSI possess more detailed information on the nature and extent of contamination on the sites for which they are accountable.

March | 2012

Polyfluoroalkyl Compounds: Scientific Literature Review Related to Contaminated Site Remediation

Presented by:
MPunt Environmental Consulting
and
Velicogna Consultants
Ottawa, Ontario

Presented to:
Contaminated Sites Division
Environment Canada
Ottawa, Ontario

Date: March 2012