From: Teresa Mongillo - NOAA Affiliate
To: Gockel, Catherine
Subject: Re: Results from Great Lakes PBDE Reduction Project
Date: Monday, April 21, 2014 12:14:38 PM

Thanks Catherine,

I got your voicemail this morning and I let Lynne and Donna know that you received the package and that you and your supervisor were pleased. We wanted to make sure you got recognition for all of your hard work and we really appreciated your effort!

Cheers,
Teresa

On Mon, Apr 21, 2014 at 12:10 PM, Gockel, Catherine <Gockel.Catherine@epa.gov> wrote:

> Hi Teresa,
>
> FYI- Here are the results from EPA's efforts to reduce PBDEs in the Great Lakes. The summary papers are posted at http://www.glc.org/wqeh/pbde.
>
> Thanks again to you and your office for the note and the whale adoption (!). That was above and beyond the call of duty.
>
> Best,
>
> Catherine
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> ---
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> **From:** Christine Manninen [mailto:manninen@glc.org]
> **Sent:** Friday, April 18, 2014 7:52 AM
> **To:** jmdaley@umich.edu; aman.saini@mail.utoronto.ca; environmental@badriver-nsn.gov; Newman, Erin; partow.guity@macombgov.org; bev@cleanproduction.org; mnbasp@rit.edu; dustin.tazelaar@cardno.com; jkennedy@newwater.us; serveissv@washington.ijc.org; Gockel, Catherine; arvaia@windsor.ijc.org; karen.fields@parsons.com; Grams, Bradley; carla.torchia@ec.gc.ca; edwardsj@ci.superior.wi.us; melissas@ecocenter.org; cory.robertson@hp.com; carri.lohse-hanson@state.mn.us; Burgess, Karen; vpebbles@glc.org; jjlehnen@gw.dec.state.ny.us; robert.letcher@ec.gc.ca; cspruce@kbic-nsn.gov; grethenw@ci.superior.wi.us; harriman@turi.org; noordykj@uwgb.edu; mcgeend1@michigan.gov; deleonf@cela.ca; trhull@uclan.ac.uk; levans@ltbbodawa-nsn.gov; (b) (6) judy@ceh.org; (b) (6); mshoque@gw.dec.state.ny.us; s.moses@glifwc.org; patricia.mccann@state.mn.us; childm@windsor.ijc.org; lisa.sealock@ec.gc.ca; laura.solem@state.mn.us; Murphy, Elizabeth; mmacdonald@environmentaldefence.ca; steve.levan@albemarle.com; hanna.silberberg@icl-ipa.com; joe.okeme@mail.utoronto.ca; outreach@a2gov.org; paula.bizot@noaa.gov; michelle.mcchristie@ontario.ca; teresa.mongillo@noaa.gov; taylorj1@michigan.gov; arlene@arleneblum.com; mary.thorburn@ontario.ca; kkubitza@theoec.org; kmeyer@theoec.org; harrisv@uwgb.edu; teresa.mongilo@noaa.gov; Nettesheim, Todd; k.mcardle@childcarecouncil.com; joel.tenney@icl-ipa.com; (b) (6); lrfogart@usgs.gov;

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Subject: fyi, Results from Great Lakes PBDE Reduction Project

For the past several decades, prior to being banned or phased out in Europe, Canada and the United States, polybrominated diphenyl ethers (PBDEs) were used as flame retardants in a host of products. PBDEs can migrate from products into our indoor and outdoor environments, which, in turn, can result in direct human exposure to these substances as well as in contamination of soils, wastewater, waterbodies, biota and food supplies.

The Great Lakes PBDE Reduction Project recently released three reports summarizing research undertaken between 2011 and 2013 to: 1) quantify sources of these pollutants in the Great Lakes region, 2) recommend a formal assessment approach to finding safer alternatives, and 3) identify metrics for tracking PBDE reductions.

Project findings/recommendations include:

• Total PBDE use in the Great Lakes region from 1970 to 2013 was estimated to range from 15,000 to 80,000 tonnes of which 85 percent is attributable to decaBDE. Products dominating the inventory include electrical and electronic equipment, automotive vehicles and textiles.

• The rate of decline of the PBDE inventory in the Great Lakes region is estimated at 5 percent per year assuming no product re-use.

• Unless more aggressive waste management strategies are implemented, the accumulation of products containing penta-, octa- and decaBDEs in landfills in the Great Lakes region will be a possible source of these contaminants to the Great Lakes environment.

• Tracking an inventory of the PBDE replacement chemicals, which can provide insight into the time trends and magnitude of emissions of these replacements to the environment, will be much more challenging, if not impossible, as it will involve many more chemicals in a wide variety of products and materials, where their use is usually not disclosed. In order to protect the Great Lakes from emerging contaminants, in addition to tracking production data as part of the Toxic Substances Control Act Inventory Chemical Data Reporting effort, mechanisms that would allow for greater transparency regarding the use of chemicals in products are needed.

• In order to avoid replacing one set of flame retardants of concern (e.g., PBDEs) with others, it is important to establish and implement a sound approach for selecting alternatives, including considering the issue of flame retardants in a broader context (e.g., re-examining flammability requirements to ensure that the desired functionality (e.g., fire safety) is maintained while minimizing risks to human and ecological health).

- Metrics for tracking short- and long-term changes in PBDE loadings and concentrations in the Great Lakes region should include:
    - PBDE air concentrations through the Integrated Atmospheric Deposition

Network, and now additionally Canada's Great Lakes Monitoring effort because of the sensitivity of these measurements to changes in emissions and availability of past temporal trends

- PBDE concentrations in open water lake trout and walleye reported by the United States and Canada because of their relevance to human and ecosystem exposures.

• The results of this research study suggest that, to ensure protection of the Great Lakes from emerging contaminants, funding for monitoring, education and partnership building is needed to address existing concerns associated with PBDEs and some of their replacements in the Great Lakes region (e.g., through alternatives assessments, and end-of-life product waste management strategies). Ideally this would be supported as part of Great Lakes Water Quality Agreement and Great Lakes Restoration Initiative actions.

The summary papers are posted at http://www.glc.org/wqeh/pbde.

The Great Lakes Commission was the project manager for the Great Lakes PBDE Reduction Project, in partnership with the University of Toronto and the National Wildlife Federation. Funding was provided by the Great Lakes Restoration Initiative.

The findings and recommendations presented in the summary papers have been prepared by the authors and do not necessarily reflect the views or policy positions of the organizations and institutions which they represent or those of the Project Advisory Committee Members and their respective agencies, organizations or companies.

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