



CHEMICALS MANAGEMENT PLAN

PROGRESS REPORT

Issue 5, Fall 2015

In this issue

- Risk assessment and risk management highlights >
- Outreach activities >
- Get informed >
- Stakeholder engagement >
- Engagement activities >
- Consultation on non-regulatory initiatives >
- Conference on nanomaterials >
- Information-gathering notices published >
- National Pollutant Release Inventory >
- International activities >
- Microbeads >
- Phthalates >
- In-Commerce List prioritization >
- Product testing >
- Canadian House Dust Study >
- Maternal-Infant Research on Environmental Chemicals >
- Code of Practice: the DEGME example >
- Coming publications >

ABOUT THIS REPORT

This fifth issue of the Chemicals Management Plan (CMP) Progress Report covers activities between June 2015 and December 2015. It also provides information about future events, dates of interest and future engagement opportunities.

The report is produced jointly by Environment and Climate Change

Canada and Health Canada.

For information about the CMP, or to find previous issues of the CMP Progress Report, visit the <Chemical Substances> website.

Feedback and suggestions can be sent to <ec.substances.ec@canada.ca>. ♦

CMP STATUS

Canada's Chemicals Management Plan continues to make progress on its mandate of reducing the risks posed by chemicals to Canadians and their environment. It does so by assessing chemicals used in Canada and taking action on those found to be harmful.

In 2006, the government completed a seven-year triage of some 23,000 chemicals that had been in commercial use during the 1980s.

That triage process identified approximately 4,300 substances for further attention.

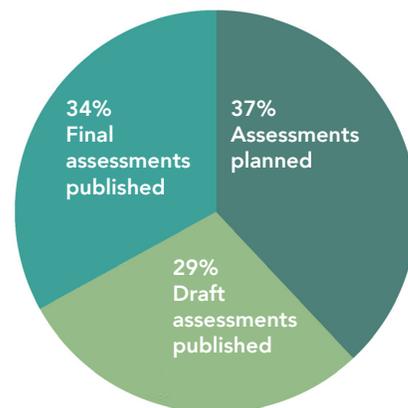
The goal of the CMP is to address all of those substances by 2020, and the government is on track to complete its objectives.

Approximately 2,740 substances have been assessed, and 363 substances or groups of substances have been concluded to be toxic. For these toxic substances, 76 final risk management instruments covering 325 substances or groups of substances have been developed. Additional

risk management instruments are being developed. Since 2006, an additional 4,500 notifications for new substances were assessed prior to their introduction into the Canadian market.

For information on the CMP, visit the <Chemicals Management Plan> webpage or see the <Overview of the Chemicals Management Plan> fact sheet.

Figure 1: Progress to date on the approximately 4,300 substances identified for further attention



RISK ASSESSMENT AND RISK MANAGEMENT HIGHLIGHTS

The Government of Canada assesses and manages, where appropriate, the potential health and ecological risks associated with chemical substances. It does so through various initiatives, each targeting a different group of chemicals.

Following are the highlights of the risk assessment and associated risk management activities between June and November 2015 for various initiatives:

<Substance Groupings Initiative>

- All draft screening assessment reports were published for the <Aromatic Azo and Benzidine-based Substance Grouping>. Six final risk assessment reports remain to be published.
- In July 2015, the draft screening assessment and the risk

management scope were released and the related notice was published for the <Selenium-containing Substance Grouping>.

- In August 2015, four state-of-the-science reports were released, along with a proposed approach for cumulative risk assessment for the <Phthalate Substance Grouping>. (See *Assessment of phthalates proceeding* in this issue for more details.)

Other chemical substances of interest

- In July 2015, the <science summary for microbeads> was posted on Environment and Climate Change Canada's website. The related Notice of Intent to Regulate and the proposed order to add to Schedule 1 were published in August 2015. (See *Microbeads: Measures announced* in this issue for more details.)

New and existing <micro-organisms>

<Risk assessment summaries> were published for five new living organisms:

- Influenza virus cold-adapted B/Massachusetts/2/2012
- Finalyse™ EC
- *Trichoderma* strain P1640A
- *Arcobacter* SP. Strain
- *Pichia* species strain

Get informed

Do you want to know more about the CMP and its initiatives? The <Chemical Substances> website contains a wealth of information and links to topics of interest. You can have the latest news emailed to you by <subscribing> through the website. This feature will also let you know about opportunities to be involved in information sessions and consultations.

New chemicals and polymers

Under the <New Substances Program>:

- Six summaries for new chemicals and polymer substances were published
- 278 new substances notification were assessed
 - 237 chemicals and polymers;
 - 13 products of biotechnology;
 - 24 chemicals and polymers solely used in a food and drug application;
 - 4 products of biotechnology solely used in a food and drug application.
- Nine pre-notification consultations were completed
- 141 substances were added to the Domestic Substances List ◆

Outreach activities

Health Canada has published plain-language information sheets about <petrolatum> and <selenium> on canada.ca, the Government of Canada's new website. It is part of an initiative to raise public awareness about individual chemicals. Follow Health Canada on <Twitter> and <Facebook> for more information and to get the latest news.



CHEMICALS MANAGEMENT PLAN

PROGRESS REPORT

Fall 2015

STAKEHOLDER ENGAGEMENT

Engaging stakeholders is central to the CMP. Stakeholders remain informed and contribute to the CMP through regular public information sessions and consultations. Below is a list of recent activities and activities to come.

Stakeholder engagement activities		
Recent events	Date	Topics/Discussions
9 th CMP <Stakeholder Advisory Council> meeting	November 2015	Moving forward to CMP3 Update on performance measurement and case study Recap from 4 th International Conference on Chemicals Management and Chemicals Management post-2020
3 rd CMP Multi-Stakeholder Workshop	November 2015	CMP3 priorities <i>Domestic Substances List</i> inventory update Risk management in the CMP Nanomaterials
<CMP Science Committee>	June 2015	Endorsement of the proposed risk assessment framework for addressing the remaining CMP substances.
	November 2015	Discussion: When and how to consider cumulative risk in chemical risk assessments Visit the <meeting records and reports> webpage for more information.
<Canadian Network for Human Health and the Environment> Webinars	June 2015	Risk management under the CMP, with a case study on BPA.
	December 2015	CMP outreach and the role of stakeholders in educating the public on the CMP. Webinar material, including material prepared jointly with the Government of Canada, can be found on the <Canadian Network for Human Health and the Environment Webinars> webpage.
Biotech industry and government working group meeting	June 2015	New advisory notes: feedback from industry. Review of the guidelines for the notification and testing of new substances: organisms. New substances e-submission. New Substances Program is going paperless. <i>Domestic Substances List</i> inventory update.
<Webinar recordings on information-gathering for microbeads, certain petroleum substances, polymers and nanomaterials>	Available online	Overview and guidance for the s. 71 notices on microbeads, certain petroleum substances, polymers and nanomaterials to help stakeholders achieve compliance with each notice.

► See Coming stakeholder engagement activities on page 4



CHEMICALS MANAGEMENT PLAN

PROGRESS REPORT

Fall 2015

Coming stakeholder engagement activities

Coming events	Tentative date	Description
Stakeholder consultation on non-regulatory initiatives to mitigate potential environmental and indirect human health impacts of substances/products regulated under the <i>Food and Drugs Act</i>	Early 2016	For information, contact the Environmental Impact Initiative Division at <nri_consultations@hc-sc.gc.ca>
Nanotechnology stakeholder workshop	Spring 2016	For information, contact the Nanotechnology Section at <brad.fisher@canada.ca>.

FOOD AND DRUGS ACT SUBSTANCES AND PRODUCTS: CONSULTATION PLANNED ON NON-REGULATORY INITIATIVES

Health Canada is encouraging stakeholders to take part in a month-long online consultation, starting in January, on non-regulatory initiatives aimed at reducing the release into the environment of substances and products regulated by the *Food and Drugs Act*.

The goal of the consultation is to support a dialogue about new or improved non-regulatory initiatives. These include such things as voluntary policies, guidelines, standards of practices, procedures, environmental stewardship programs, extended producer responsibility and good manufacturing processes.

Health Canada is hoping for participation from a wide range of stakeholders across the *Food*

and *Drugs Act* commodity groups. These include pharmaceuticals, cosmetics, veterinary drugs, natural health products, biologics, radiopharmaceuticals, novel foods, food additives and medical devices.

The outcome of the consultation will help identify a path forward for Health Canada and/or other stakeholder groups for protecting the environment and, indirectly, human health, and may include the development of partnerships or relationships.

Four themes identified as potential areas for improvement will help organize the dialogue:

- Take-back programs for products regulated by the *Food and Drugs Act*;

- Education/guidance on how to properly dispose of products regulated by the *Food and Drugs Act* and on non-regulatory initiatives in general;
- Logos/labelling; and
- Uniform definitions as well as monitoring and tracking of data surrounding initiatives.

Once an analysis of the consultation findings has been completed, a report detailing the outcome and possible next steps will be distributed to participants.

For information, contact <nri_consultations@hc-sc.gc.ca>. ◆



CHEMICALS MANAGEMENT PLAN

PROGRESS REPORT

Fall 2015

HUMAN HEALTH A FOCUS OF CONFERENCE ON NANOMATERIALS

A two-day conference on nanomaterials and their implications for human health will take place at McGill University in Montreal January 27-28, 2016.

Health Canada and Environment and Climate Change Canada are part of the advisory committee planning the conference, and are working with Pollution Probe and McGill University to frame the topics being considered.

The conference will draw together representatives from industry,

academia, civil society and governments from Canada and around the world.

The first day will focus on understanding the science behind the behaviour of nanomaterials; the second will examine the issue through a policy lens.

Expected outputs include a report on key learnings and policy needs, including evolving public perceptions and concerns. The conference will also seek to understand how

nanotechnology fits into a larger chemicals management plan, considering the experience and best practices of other jurisdictions. And it will serve to inform the creation of an ongoing platform for multi-stakeholder and public engagement on issues of nanomaterials and human health.

Conference information will be posted on <Pollution Probe>'s website as it becomes available. ◆

INFORMATION-GATHERING NOTICES PUBLISHED IN CANADA GAZETTE

In July and August 2015, the government published four notices in the Canada Gazette under the information-gathering provisions of section 71 of the *Canadian Environmental Protection Act, 1999*:

- The <notice with respect to microbeads in certain personal care applications> is gathering information on uses and sources of microbeads in certain personal care applications. It will inform potential risk management actions of microbeads released into water.
- The <notice with respect to certain priority petroleum substances on the Domestic Substances List> is gathering qualitative information about the import and blending/formulation activities of 70 of the remaining priority petroleum substances. It will support a triage activity for assessment, as well as help identify stakeholders for further engagement.
- The <notice with respect to certain priority polymers on the Domestic Substances List> is gathering information from importers, manufacturers and users in Canada of 302 polymers to inform risk assessment.
- The <notice with respect to certain nanomaterials in Canadian commerce> is gathering information on 206 nanomaterials identified as potentially in commerce in Canada. Its goal is to confirm their commercial status to support the development of a list of nanomaterials in commerce in Canada and to help in the prioritization of nanomaterials for assessment.

More information on these notices, including deadlines to report, guidance on how to report and link to the online reporting tool, is available on the <Mandatory Surveys - Section 71 Notices> section of the Chemical Substances website. ◆

THE NATIONAL POLLUTANT RELEASE INVENTORY: FACILITY-REPORTED DATA FOR 2014 TO BE RELEASED

Final reviewed data for 2014 on pollutant releases, transfers and the disposal of over 300 substances is planned to be released no later than early 2016. The data, along with the 2014 annual summary report, will be posted on the <Pollution Data and Reports> webpage.

Each year, data reported by over 7,000 facilities across Canada is made available to the public on the <National Pollutant Release Inventory> website.

Preliminary data from 2014 was released in July 2015. Facilities were then able to signal corrections or updates before release of the final reviewed data. ◆



WEBINAR SHOWCASED CANADIAN PARTICIPATION AT STOCKHOLM, BASEL AND ROTTERDAM CONVENTION MEETINGS

On June 17, 2015, Environment and Climate Change Canada and Health Canada's Pest Management Regulatory Agency held a webinar for interested stakeholders, organizations and individuals regarding the outcomes of the Conferences of the Parties to the Stockholm, Basel and Rotterdam Conventions, which took place May 4-15, 2015 in Geneva, Switzerland.

More information on [the Conferences](#) can be found online. ◆

STRATEGIC APPROACH TO INTERNATIONAL CHEMICALS MANAGEMENT

The [Fourth Session of the International Conference on Chemicals Management](#) took place in Geneva from September 28 to October 2, 2015. A four-member interdepartmental Canadian delegation led by Health Canada attended the meeting.

The conference:

- adopted the "Overall Orientation and Guidance" for achieving the Strategic Approach to International Chemicals Management's 2020 goal for the sound management of chemicals, calling on all stakeholders to pursue additional initiatives;
- initiated an intersessional process to prepare recommendations on the Strategic Approach beyond 2020, including possible measurable objectives in support of the post-2015 sustainable development

agenda, and an independent evaluation of the Strategic Approach;

- recommitted to continue work on existing emerging policy issues and other issues of concern, including endocrine-disrupting chemicals, lead in paint, hazardous substances in electrical and electronic equipment, nanotechnology and manufactured nanomaterials, perfluorinated chemicals, and chemicals in products, including a voluntary program on chemicals in products; and
- agreed to work on pharmaceuticals in the environment as an emerging issue and on highly hazardous pesticides as an important area of concern.

The [conference meeting documents](#) are available online. ◆

UNITED NATIONS 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

More than 150 world leaders adopted an ambitious new sustainable development agenda at a United Nations summit held September 25-27, 2015, in New York.

The [2030 Agenda for Sustainable Development](#) contains 17 sustainable development goals, with 169 targets. The following targets relate to chemicals management:

- Target 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
- Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and at least doubling recycling and safe reuse globally.
- Target 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks and agreements, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. ◆



CHEMICALS MANAGEMENT PLAN

PROGRESS REPORT

Fall 2015

PROGRESS IN CANADA-U.S. REGULATORY COOPERATION COUNCIL ACTIVITIES

Canada and the U.S. have made important progress on the <work plan> for chemicals management activities under the <Canada-U.S. Regulatory Cooperation Council>. The plan has two initiatives, one on chemicals risk assessment, and one focusing on regulatory reporting requirements for new uses of chemicals. Multi-stakeholder technical working groups formed to support both initiatives met face-to-face in Washington, D.C., at the end of October.

Under the risk assessment initiative, a comparative analysis of the regulatory frameworks used in each country to assess the risk of existing chemicals was finalized last summer. The analysis also identified opportunities for alignment between

Canada and the U.S. As well, case studies were developed with input from industry representatives. For each case study, certain areas of risk assessment (exposure approaches, for example) were chosen to be the focus of discussion to compare and potentially align Canadian and U.S. approaches.

Under the initiative on Significant New Activity provisions/Significant New Use Rules, work focused on facilitating the sharing of notification and assessment information between the two countries; aligning the review of Significant New Activity provisions and Significant New Use Rules; defining certain Significant New Activities/Significant New Uses; and requirements related to customer notification.

A key part of this initiative involves work to support supply chain communication on chemicals. Two roundtable meetings held in Toronto and Washington in September brought together representatives from industry and non-governmental organizations to discuss challenges and solutions related to sharing information on chemicals throughout supply chains. A final report on these roundtables will be completed in December 2015.

A web conference was held on December 14, 2015 to share information on how the Canada-U.S. Regulatory Cooperation Council Chemicals Management Work Plan is progressing. For information, contact <ec.rcc-ccr_substances.ec@canada.ca>. ◆

GREAT LAKES WATER QUALITY AGREEMENT

Under Annex 3 of the Great Lakes Water Quality Agreement, mercury, PCBs, PBDEs, HBCD, PFOS, PFOA, LC-PFCA, and SCCPs have been recommended for designation as the first set of chemicals of mutual concern. Canada and the U.S. are committed to developing binational strategies for designated chemicals of mutual concern. Binational strategies could include monitoring, research and/or pollution prevention and control measures. ◆

MINAMATA CONVENTION ON MERCURY

Canada is a signatory to the <Minamata Convention on Mercury>. In September 2015, the fourth meeting of the Convention's technical expert group took place in Stockholm, Sweden. The technical group, which includes a Canadian expert, met to finalize the draft guidance document on best available techniques and best environmental practices for mercury emissions from new industrial sources listed in the treaty. The seventh session of the intergovernmental negotiating committee on mercury is scheduled for March 10-15, 2016, in Jordan. ◆

STRATEGIC PRIORITIES FOR THE COMMISSION FOR ENVIRONMENTAL COOPERATION

Climate change mitigation and adaptation, green growth, and sustainable communities and ecosystems are the 2015-2020 strategic priorities of the <North American Commission for Environmental Cooperation>. Canada, the U.S. and Mexico continue to work together to support chemicals management. The current operational plan includes a project on the release of chemicals from products to support the risk assessment or management of CMP substances. ◆



CLEARING HOUSE MEETING AND ANALOGUE WORKSHOP

The Organisation for Economic Co-operation and Development's <Clearing House on New Chemicals> brings together representatives of interested governments and the chemical industry to exchange information and develop partnerships for a better management of chemical products. Canada hosted the last meeting on October 7-8, 2015, in Vancouver. Representatives from industry as well as from United States, Australia, Canada, Japan and Taiwan attended. The parties met to review the mandate and vision of the Clearing House, review

the progress and path forward for the work items, and consider new projects. Discussion topics included the parallel process, the polyester monomer/reactant exemption project, electronic notifications, communication activities, and new potential projects and work items. The need for a dedicated forum to discuss and work on challenges that are unique to new substances was highlighted. Additional consideration regarding capacity-building activities was considered, and a revised mandate of the Clearing House will

be presented at the Joint Meeting in January, 2016, for review.

Country members also met during the Organisation's Workshop on Utilization of Analogues in New Chemicals Programmes on October 6, 2015 to share approaches to the selection, use, and validation of analogues in new substances submissions and associated challenges. Case studies were shared and discussed, and commonalities and best practices were identified. For information, contact <jonathan.tigner@canada.ca>. ◆

MICROBEADS: MEASURES ANNOUNCED

On March 24, 2015, the House of Commons unanimously passed a motion stating that microbeads in consumer products could have serious harmful effects to the environment. The motion urged the government to add <microbeads> to the list of toxic substances managed by the government under the *Canadian Environmental Protection Act, 1999*.

The following actions have been taken on microbeads through the CMP:

- <Publication of a science summary on microbeads>: On July 30, 2015, Environment and Climate Change Canada scientists published on the Chemical Substance website a thorough scientific review and analysis of over 130 scientific papers, as well as consultations with experts. It shows that microbeads may pose a concern to the environment because they contribute to plastic

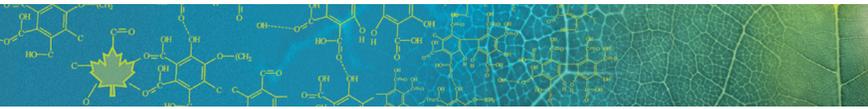
litter in lakes and rivers, and accumulate in the environment. The science summary concludes that microbeads are eco-toxic, as defined under the *Canadian Environmental Protection Act, 1999*. However, there is no evidence of human health concerns linked to the release of microbeads to the environment from personal care products.

- **Addition of microbeads to the Toxic Substances List (Schedule 1):** A <proposed Order> was published in the *Canada Gazette* on August 1, 2015 for a 60-day public comment period as the first formal step towards adding microbeads to the *Toxic Substances List* under the *Canadian Environmental Protection Act, 1999*. Adding microbeads to the list provides the government with the authority to regulate. Comments received from stakeholders on

the proposed Order are being considered, and a final Order is expected in spring 2016.

- **Preparation to regulate:** A <notice of intent to regulate> was published with the science summary on microbeads in the *Canada Gazette* on August 1, 2015, followed by a 60-day public comment period. Consultation on the regulatory proposal is expected in early 2016.
- **Survey of industry:** An <information-gathering notice> to industry stakeholders was published in the *Canada Gazette* on August 1, 2015 and will allow Environment and Climate Change Canada to gather information to support planned regulatory actions on microbeads. The deadline to report was October 15, 2015.

Visit the <microbeads webpage> for more information. ◆



ASSESSMENT OF PHTHALATES PROCEEDING

Phthalate substances are found in plasticizers, adhesives, sealants, paints and coatings, plastic and rubber materials, and automotive parts. Fourteen phthalate substances were initially included in the [Phthalates Substance Grouping](#). They were selected for a number of different reasons: some have been identified as potentially associated with reproductive and developmental effects; some have high potential exposure to consumers and children; some are associated with potential ecological effects of concern; and some have been identified as priorities internationally.

Because Canadians and the environment are exposed to multiple different phthalates, and because some of these substances may have common health and ecological

effects of concern, the scope of the Grouping may be expanded to consider other phthalates in a cumulative risk assessment.

Canada's approach to assessing phthalates was presented to stakeholders at a technical workshop in March 2014 to obtain input on assessment approaches. Following these discussions, a [technical category approach document](#) was developed by Health Canada. The document outlines Health Canada's approach, using chemical categories and read-across data to address data gaps in the human health assessment. The purpose of this exercise was to develop appropriate subgroups for identification of common health effects of concern. [The Summary Report on Phthalates Stakeholder Technical Workshop](#) is available online.

In August 2015, Environment and Climate Change Canada and Health Canada published [four state-of-the-science reports](#) on the 14 substances in the Phthalates Substance Grouping. They also released a [proposed cumulative risk assessment approach document](#) for a 60-day public comment period. This was undertaken to solicit input on the science prior to publication of a draft screening assessment, including an assessment of cumulative risk. Comments received from stakeholders on the publication of the state-of-the-science reports and the proposed cumulative risk assessment approach will inform the draft Screening Assessment.

Publication of the draft Screening Assessment for public comment is tentatively planned for the summer of 2016. ♦

PRODUCT TESTING SUPPORTS THE CMP

Consumer products have often been identified as a source of exposure for substances under the CMP. Although attempts are made to gather as much data as possible through such things as section 71 surveys, literature and Web searches, there is often uncertainty about concentrations of these substances in consumer products and cosmetics in Canada. To inform risk assessment and management activities, Health Canada's Product Safety Laboratory of the [Consumer Product Safety Directorate](#) routinely undertakes analytical testing of targeted products. These include toys, children's products, textiles, paints, solvents, furniture and cosmetics. Product testing provides Canadian-specific data for the CMP. This has helped in determining the appropriate risk assessment and risk management decisions. Over the years, testing has been performed for several high-profile substances such as BPA, phthalates, flame retardants, azo dyes, PAHs and TCEP.

To learn more, visit the [Product Safety Testing](#) webpage. ♦

IN-COMMERCE LIST: PROGRESS ON PRIORITIZATION

The Government of Canada is on track to complete prioritization of the [In-Commerce List](#). Both the latest update of the list and the approach to prioritization document will be published in the coming months.

As part of its work under the CMP, the Government of Canada is prioritizing substances on the list. The goal is to identify those that may require

▶ *continued on page 10*



► *In-Commerce List, continued from page 9*

further evaluation to determine whether they present a risk of significant harm to human health or the environment.

By the end of 2015, preliminary prioritization decisions will have been made for more than 2,700 of the approximately 3,600 substances on the list.

The government expects the prioritization will be completed by March, 2016.

Since September 2001, substances in products regulated under the *Food and Drugs Act* have been subject to the New Substances Notification Regulations of the *Canadian Environmental Protection Act, 1999*.

The list has grown over time, and is periodically republished to show these changes.

To learn more about the list, visit Health Canada's [In-Commerce List](#) webpage or see the [first issue of the CMP Progress Report](#). ◆

[rates of arsenic, zinc and cadmium in urban homes](#)>. Datasets published for organic compounds include [phthalates](#) in house dust.

The Dust Study also addresses specific questions about exposure trends and processes. At the Canadian Society for Chemistry conference in June, 2015, a [presentation on cadmium and how different sampling metrics inform exposure assessments](#)> showed that in homes occupied by smokers, and in homes located within two kilometres of industry, cadmium was accumulating more rapidly than elsewhere. Another presentation on the [impact of humidity on speciation and bioaccessibility of such substances as lead and zinc in house dust](#)> showed that humidity in the home can cause transformations of zinc and lead compounds into more soluble forms. This increases the amount of these substances that can be absorbed in the human body. This study also included datasets for cobalt and selenium from the Dust Study.

The next phase will focus on the generation of national baseline estimates for the rare earth elements, which are becoming increasingly important in high-tech consumer products. Also, national datasets on BPA, alkylphenol, alkylphenol ethoxylates and PBDEs will be published.

In future phases, relationships between indoor contaminants and characteristics of the Canadian housing stock – things like construction materials, consumer products and urban settings – will be investigated. Existing Canadian House Dust Study datasets will inform risk management activities. ◆

SNAPSHOT: THE CANADIAN HOUSE DUST STUDY

The Canadian government needs information from a wide range of sources to determine what is – and what is not – harmful to people in their environment. One element in the mix is information on household dust collected through the Canadian [House Dust Study](#).

The Canadian House Dust Study provides statistically representative national baseline estimates for indoor environmental concentrations of chemicals found in typical urban households. This information can be used to inform risk assessment and risk management for CMP.

Between 2007 and 2010, more than 1,000 homes in 13 Canadian cities were sampled using vacuums and wipes.

One priority was to collect information on lead in dust, to inform risk management activities

related to lead exposure in indoor environments.

Another was to compare and evaluate various dust sampling techniques for CMP substances. This will inform future research, and monitoring and surveillance activities (see [Science and Research](#) webpage).

In 2015, selenium, boron and cobalt datasets from the study were incorporated into CMP screening assessments.

Meanwhile, the completion of organic flame retardants and phthalates datasets helped set priorities and develop risk assessment approaches.

Information on datasets published for some CMP inorganics can be found on the Health Canada webpage on [concentrations, loads and loading](#)



EXPOSURE OF PREGNANT WOMEN AND CHILDREN TO CHEMICALS: STUDY RESULTS

The CMP-funded Maternal-Infant Research on Environmental Chemicals Study is a multi-year research platform designed to measure the extent to which pregnant women and their children are exposed to environmental chemicals. It also aims to assess what potential health risks, if any, are associated with prenatal exposure to these substances.

Statistical analysis and publication of study results in scientific literature are continuing and include the following:

- <Prenatal phthalate and BPA exposures and fetal markers of metabolic dysfunction> (*Environmental Health* 2014, 13:84);
- <An examination of trends in levels of persistent organic pollutants in human milk over time> (*Organohalogen Compounds* 2014, 76: 392-395);
- <Levels of free and total BPA in human milk samples> (*Food Additives and Contaminants* 2015 Jan.; 32(1):120-5);
- <Maternal blood metal levels and fetal markers of metabolic function> (*Environmental Research* 2015 Jan., 136:27-34);
- <Levels of free and conjugated forms of BPA and triclosan in maternal urine> (*Environmental Health Perspectives* 2015, 123(4):277-284);
- <Perfluoroalkyl substances and time to pregnancy> (*Human Reproduction* 2015 Mar., 30(3):701-9);
- <Phthalates, BPA and triclosan and time to pregnancy> (*Fertility & Sterility* 2015 Apr., 103(4):1011-1020.e2);
- <Maternal levels of phthalates, BPA and perfluoroalkyl substances and cord blood biomarkers of immune system status> (*Environmental Research* 2015, 140:360–368);
- <Maternal exposure to metals and risk of small-for-gestational-age births> (*Environmental Research* 2015 May 7, 140:430-439);
- <Association of phthalates, BPA and metals with impaired glucose tolerance and gestational diabetes mellitus> (*Environment International* 2015, 83:63-71).

Study results have and will continue to be used to inform risk assessment and risk management activities, with the ultimate aim of reducing the health risks posed to Canadians by environmental chemicals.

See the <Maternal-Infant Research on Environmental Chemicals (The MIREC Study)> and <MIREC Canada's national profile of in-utero and lactational exposure to environmental contaminants>. ◆

RISK MANAGEMENT INSTRUMENTS CODE OF PRACTICE: THE DEGME EXAMPLE

This is the second in a series of articles on risk management instruments that have been used for substances found to be harmful to the environment and/or human health under the CMP. In this issue, the spotlight is on the code of practice.

A draft code of practice was published on May 9, 2015, for 2-(2-methoxyethoxy) ethanol <(DEGME)>.

The objective of the code is to reduce the exposure of the general population to DEGME, a substance from Batch 3 of the Challenge initiative, during the application of surface coating materials. <The proposed code> recommends a concentration threshold of 10,000 mg/kg of DEGME in consumer products that are surface coating materials.

A code of practice is a voluntary risk management instrument that outlines the recommended best practices, procedures, and/or environmental controls for dealing with certain substances.

The goal may be to encourage the sustainable use of the environment, to protect the health and safety of Canadians or to reduce pollution by industry or other parties by setting criteria under the Canadian *Environmental Protection Act, 1999* that companies and organizations should follow. A code of practice can address releases of a single

▶ continued on page 12



CHEMICALS MANAGEMENT PLAN

PROGRESS REPORT

Fall 2015

► *Risk management instruments, continued from page 11*

substance or several substances from the same source.

Although voluntary, a code of practice can assist in the creation of future legislative and regulatory measures. It can also be adopted by any level of government, industry association, or even internationally.

In the case of DEGME, the code of practice may be adopted by any Canadian manufacturer or importer of a consumer product that is a surface coating material containing DEGME.

The final code of practice on DEGME is expected to be published in the

Canada Gazette, Part I, by the end of 2016 at which point, it will come into effect.

A code of practice can offer much-needed flexibility for risk management, in that it can be used either alone or as part of a mix of instruments to address environmental and/or health concerns. This includes, but is not limited to, managing the risks associated with substances that meet the definition of toxic under the *Canadian Environmental Protection Act, 1999*.

In order to meet the code of practice, companies have the flexibility to choose how they appropriately modify their own

practices and/or products for their particular situation.

A code of practice is one of several available risk management instruments that may be employed to manage substances determined to be harmful to the environment and/or human health. For information on the code of practice, including a <[factsheet](#)> and other <[codes of practice](#)> issued under the Act, see the <[Canadian Environmental Protection Act Registry](#)>.

Visit the <[risk management actions](#)> webpage to find more information on the status of risk management instruments under CMP. ◆

COMING PUBLICATIONS

Draft screening assessments and risk management scopes (when needed) for:

- *Aspergillus oryzae*
- Asphalt and oxidized asphalt
- *Bacillus cereus*
- *Bacillus circulans*
- *Bacillus megaterium*
- Boric acid, its salts and its precursors
- Coal tars and their distillates
- Distillate aromatic extracts
- Liquefied petroleum gases
- Organic flame retardants
- *Pseudomonas putida*
- *Saccharomyces cerevisiae* F53
- Substituted diphenylamines

Final screening assessments and risk management approaches (when needed) for:

- Aromatic amines
- *Aspergillus awamori*
- *Aspergillus brasiliensis*
- BDTP
- *Candida utilis* ATCC 9950
- Certain azo acid dyes
- Certain azo disperse dyes
- Certain basic dyes
- Certain solvent dyes
- Cobalt and cobalt-containing substances
- *Enterobacter aerogenes*
- Ethene

- Ethylbenzene
- Heavy fuel oils
- Hexachloroethane
- Internationally classified substances
- Liquefied petroleum gases
- MDI MDA
- Mitotane, BAPP & sclareol
- Monoazo pigments
- Natural gas condensates
- Petrolatum and waxes
- *Pseudomonas sp.* ATCC 13867
- Rapid screening III
- Rapid screening polymers
- Triclosan

► *continued on page 13*



CHEMICALS MANAGEMENT PLAN

PROGRESS REPORT

Fall 2015

► *Coming publications, continued from page 12*

Risk management instruments:

- Final publication of the *Prohibition of Certain Toxic Substances Regulations, 2012* adding hexabromocyclododecane (HBCD), polybrominated diphenyl ethers (PBDEs), perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), and long-chain perfluorocarboxylic acids (LC-PFCAs).
- Final publication of the Code of Practice for a Recommended Concentration of 2-(2-Methoxyethoxy) Ethanol (DEGME) in Surface Coating Materials Available to Consumers in Canada.
- Proposed amendments to the Benzenamine, N-phenyl-, Reaction Products with Styrene and 2,4,4-Trimethylpentene (BNST) requirements found in the Prohibition of Certain Toxic Substances Regulations, 2012 in 2015. (75-day public comment period).
- Notice of intent to amend the *Domestic Substances List* to indicate that the Significant New Activity provisions apply to the substance AEEA (111-41-1).

- Proposed code of practice for the environmentally sound management of end-of-life lamps containing mercury.
- Consultation document on proposed regulations for microbeads in personal care products used to exfoliate or cleanse.
- Proposed amendments to the Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulation, following on consultations which ended on December 11, 2015, will be published in *Canada Gazette, Part I*.

Significant New Activity Approach:

- Notice of intent to amend the *Domestic Substances List* to indicate that the Significant New Activity provisions apply to substances from the rapid screening of substances identified from Phases One and Two of the *Domestic Substances List* Inventory Update
- Notice of intent to amend the *Domestic Substances List* to indicate that the Significant New Activity provisions apply to the substance AEEA (111-41-1)
- Notice of intent to amend the *Domestic Substances List* to

indicate that the Significant New Activity provisions apply to the substances 4,4'-MDA (101-77-9) and pMDA (25214-70-4)

- Notice of intent to amend the *Domestic Substances List* to indicate that the Significant New Activity provisions apply to the substance BAPP (13080-86-9)
- Publications relating to the review of Significant New Activity Notices and Orders:
 - Notice of intent to amend the *Domestic Substances List* to vary or rescind the significant new activity requirements in relation to 27 substances
 - Notice of intent to vary the Significant New Activity Notice No. 13712a (variation to Significant New Activity Notice No. 13712)
 - Following the assessments of subgroups from the Aromatic Azo and Benzidine based Substance Grouping, Orders may be published (as appropriate) to indicate that the Significant New Activity provisions no longer apply to certain substances. ◆