

ANNEX - Canada's endeavour to identify mercury stocks

Canada has endeavoured to identify individual stocks of mercury or mercury compounds exceeding 50 metric tonnes and source of mercury supply generating stocks exceeding 10 metric tonnes per year using the *Guidance on the identification of individual stocks or mercury or mercury compounds exceeding 50 metric tons and source of mercury supply generating stocks exceeding 10 metric tons per year (the Guidance)*.

The high-level results of Canada's endeavour are as follows:

Identification of stocks of mercury or mercury compounds exceeding 50 metric tonnes

Mercury Traders

A review of mercury import and export data was conducted using the Canadian International Merchandise Trade Database. As noted in question 5, there was one company trading mercury during this reporting period. Through an investigation of this company by Environment and Climate Change Canada's enforcement branch, it was determined that there are no remaining stocks of mercury at this facility, and that the company has ceased to export mercury.

Primary Mercury Mine

Canada does not have any primary mercury mines.

Other Facilities or Activities

In Canada, there are authorized facilities who recover mercury from end-of-life products and other wastes. Authorization for these facilities falls under provincial and territorial jurisdictions. All mercury recycling and recovery operations must follow all applicable provincial and federal laws and regulations. Although the exact quantity of mercury recovered is unknown at this time, given the low quantities of mercury-containing products imported and manufactured in Canada, it is expected that these recovery facilities generate very small quantities of mercury and mercury compounds and would not be in possession of stocks of mercury or mercury compounds exceeding 50 metric tonnes. Canada is working with its provinces and territories to collect more information from the authorized facilities in order to gain additional clarity on the quantities of mercury recovered.

National Government

The Government of Canada is not in possession of stocks of mercury or mercury compounds exceeding 50 metric tonnes.

Production Facilities for Mercury-added Products

The *Canadian Environmental Protection Act, 1999* (CEPA) is the principle federal legislative tool aimed at preventing pollution and protecting the environment. CEPA protects the environment and of the health of Canadians from harmful substances and other pollutants and provides the authority to restrict or eliminate production, use, import and export of toxic substances and products containing these substances.

One of the instruments under CEPA that helps protect Canadians and the environment from mercury is the *Products Containing Mercury Regulations*. These Regulations prohibit the import and manufacture of most products containing mercury except for those listed on the Schedule to the Regulations and set the maximum total quantity of mercury allowable for certain product categories. Under these Regulations, importers and manufacturers of products containing mercury are required to report on the quantity of mercury containing products that they imported and/or manufactured every three years, beginning in 2016.

Analysis of the data from 2016 indicated that, products imported or manufactured in Canada contained an estimated total of 1.04 metric tonnes of mercury. Dental amalgam made up 57% (0.632 metric tonnes) of imported and manufactured mercury containing products in Canada in 2016. Lamps containing mercury represented approximately 38% (0.423 metric tonnes) and other products made up the remaining 5% (0.05 metric tonnes) of imports and manufactured mercury containing products. All dental amalgam and 61% of mercury containing lamps in Canada are imported. Across eight companies who manufacture mercury containing products or use mercury in their production process, only 0.18 metric tonnes of mercury were incorporated into products in 2016. As relatively small quantities of mercury are used in the import or manufacture of products containing mercury in Canada, it is very unlikely that there are any facilities within Canada that store quantities of mercury in excess of 50 metric tonnes.

Facilities Using Manufacturing Processes that Use Mercury or Mercury Compounds

Canada does not have facilities using mercury processes to manufacture vinyl chloride monomer, sodium or potassium methylate or ethylate, chlor-alkali, or acetaldehyde. Canada had three facilities using mercury-containing catalysts for polyurethane production in 2016. One of these facilities was using mercury-containing catalysts for only research and development activities and no longer uses this catalyst. The remaining two facilities are working to phase-out their use of this catalyst as Canada is in the process of amending the *Products Containing Mercury Regulations* to set an end date for the exemption allowing mercury catalyst use. It is therefore unlikely that any of these facilities have stocks of mercury exceeding 50 metric tonnes.

Sources of mercury supply generating stocks exceeding 10 metric tons per year

Primary Mercury Mine

Canada does not have any primary mercury mines.

Storage prior to use

As stated in the analysis on determining mercury stocks over 50 tonnes, data from 2016 indicated that products imported or manufactured in Canada contained an estimated total of 1.04 metric tonnes of mercury. Across eight companies who manufacture mercury containing products or use mercury in their production process, only 0.18 metric tonnes of mercury were incorporated into products in 2016. As relatively small quantities of mercury are used in the import or manufacture of products containing mercury in Canada, it is very unlikely that there are any facilities within Canada that store quantities of mercury in excess of 10 metric tonnes prior to its use.

Recycling or recovery activities that may produce mercury

In Canada, there are authorized facilities who recover mercury from end-of-life products and other wastes. Authorization for these facilities falls under provincial and territorial jurisdictions. All mercury recycling and recovery operations must follow all applicable provincial and federal laws and regulations. Although the exact quantity of mercury recovered is unknown at this time, given the low quantities of mercury-containing products imported and manufactured in Canada, it is expected that these recovery facilities generate very small quantities of mercury and mercury compounds and would not be in possession of stocks of mercury or mercury compounds exceeding 10 metric tonnes. Canada is working with its provinces and territories to collect more information from the authorized facilities in order to gain additional clarity on the quantities of mercury recovered.

Proposed decommissioning of facilities with manufacturing processes in which mercury or mercury compounds are used

Canada does not have any chlor-alkali plants or vinyl chloride monomer plants. There are no other facilities in Canada with manufacturing processes in which mercury or mercury compounds are used that are proposed for decommissioning. However, the last remaining polyurethane production facilities using a mercury containing catalyst are working to transition to a mercury-free alternative. All other polyurethane production facilities in Canada have closed or have already made this transition. Less than 0.03 tonnes of mercury containing catalyst were used in polyurethane production in 2016.

Therefore, decommissioning activities associated with manufacturing processes in which mercury or mercury compounds are used are not a source of mercury supply generating stocks greater than 10 metric tonnes in Canada.

Facilities that may result in the production of by-product mercury within the territory

One smelting operation produces mercury and a mercury compound (calomel) as waste by-products. The facility reports annually on the amount of mercury waste it produces through Canada's National Pollutant Release Inventory. The quantity of mercury waste generated varies from year to year, but has been consistently below 10 metric tonnes. The mercury waste is collected and exported for disposal at an accredited facility.