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Panel on Environmental Affairs

Meeting on 25 May 2020

Background brief on the Minamata Convention on Mercury prepared by the Legislative Council Secretariat

Purpose

This paper provides background information on the Minamata Convention on Mercury. It also gives a brief account of the views and concerns expressed by Members when related issues were raised at the meetings of the Legislative Council ("LegCo").

Background

Health impacts of mercury

2. Mercury is a naturally occurring element in air, water and soil with little amount and can exist in three forms, including elemental (metallic) mercury, inorganic mercury compounds and organic mercury compounds. It is highly toxic which poses a global threat to human health and the environment. Together with its various compounds, it has a range of severe health impacts, including damage to the central nervous system, thyroid, kidneys, lungs, immune system, digestive system, eyes and skin. Victims may suffer memory loss or language impairment, and the damage to the brain cannot be reversed. Infants, children and pregnant women are among the most vulnerable and sensitive to the health effects of mercury.

The Minamata Convention on Mercury

3. Recognizing the detrimental and long-lasting effects of mercury on human health and the environment, the United Nations Environment Programme decided in 2009 to develop a global legally binding instrument on mercury.¹ In October 2013, the Minamata Convention on Mercury ("the Convention"), an international treaty with the objective to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds, was adopted by 128 signatory nations at a Diplomatic Conference held in Kumamoto, Japan.² The Convention entered into force in China (including Hong Kong) on 16 August 2017.

4. The Convention contains 35 Articles and among them are 10 operational Articles which stipulate the obligations on controlling the entire life cycle of mercury from its supply, trade, use, storage, release and disposal. In Hong Kong, the Government commissioned a study in 2015 to review the provisions under the existing local administrative and regulatory frameworks to take forward implementation of the Convention.

Public consultation on regulation of mercury, mercury compounds and mercury-added products

5. In August 2018, the Government released a consultation document setting out the proposed scope and approach of a new legislation for regulating mercury, mercury compounds and mercury-added products in Hong Kong,³ with a view to fulfilling its obligations under the Convention. The proposed legislation is aimed to restrict the import and export of mercury, prohibit the manufacture, import, export, sale and supply of specified mercury-added products, prohibit the use of mercury or mercury compounds in specified manufacturing processes and control the storage of mercury and mercury compounds. The consultation exercise on the legislative proposal was completed in early October 2018. The Administration plans to introduce the proposed legislation to LegCo in February 2020.

¹ The United Nations Environment Programme is an organization established in 1972 to guide and coordinate environmental activities within the United Nations system.

² In the mid-20th century, thousands of people in Minamata, Japan were poisoned by mercury-contaminated industrial wastewater.

³ The consultation document is hyperlinked in the Appendix.

Council questions

6. At the Council meetings of 17 July 2013, 27 May 2015, 20 April 2016 and 8 May 2019, Hon YIU Si-wing, Hon Kenneth LEUNG, Hon Dennis KWOK and Hon CHEUNG Kwok-kwan asked questions relating to the risks posed on the health of the public by food/products containing mercury, including compact fluorescent lamps ("CFLs"), seafood (e.g. sashimi and sushi) and preservatives in vaccines.

Compact fluorescent lamps

7. Members noted that the gas released by CFLs when they broke contained mercury and phenol, which was harmful to human body. They enquired about the specific measures the relevant authorities had put in place to ensure proper disposal of spent CFLs, so as to prevent the toxic substances released by spent CFLs from causing harm to the health of the public and cleaners; and how the authorities would promote and educate the public on the proper use and disposal of CFLs.

8. The Administration advised that CFLs contained materials including metal, glass and a tiny amount of mercury. Fluorescent lamps did not affect the human body and the environment when they were intact. When such lamps broke, a small amount of mercury vapour would be released and they should be handled with care. With good ventilation, mercury vapour would be diluted very soon. Therefore, under normal circumstances, the transport and disposal of CFLs would not affect the health of the public or the waste disposal staff. The Environmental Protection Department ("EPD") had issued guidelines to remind the public to place used fluorescent lamps in the packaging of new lamps before depositing them into collection boxes for recycling, and to take safety measures when handling broken lamps. These guidelines had been issued to housing estates and public collection points participating in the Fluorescent Lamp Recycling Programme, and uploaded onto the EPD website.

Seafood containing methylmercury

9. Samples of sashimi and sushi taken by the Consumer Council at the retail level in the past had been found to contain methylmercury, a heavy metal compound. Members asked about the measures to enhance the food safety of seafood, sashimi and sushi in particular, in order to protect public health.

10. The Administration pointed out that the maximum permitted concentration levels of metallic contaminants in food were stipulated in the Food Adulteration (Metallic Contamination) Regulations (Cap. 132V). Certain types of fish, including the larger species such as shark, swordfish, alfoncino and

some tuna species, might contain higher levels of methylmercury. The Centre for Food Safety had been reminding the public through various channels of the risks of consuming raw fish and the various points to note, including patronizing reliable food premises and shops which were licensed or issued with a permit for selling the food concerned. It would also continue to adopt a risk-based approach in taking food samples at the import, wholesale and retail levels for testing. The Food and Environmental Hygiene Department would continue to carry out inspections of licensed food premises in accordance with their risk levels.

Preservatives in vaccines

11. Members noted that a mercury-containing organic compound, thimerosal, had been widely used as a preservative in vaccines. As thimerosal allegedly contributed to the development of autism and other neurological disorders in children, Members expressed concerns over the safety of vaccines containing thimerosal.

12. The Administration informed members that the Global Advisory Committee on Vaccine Safety ("the Advisory Committee") of the World Health Organization had discussed the safety of thimerosal-containing vaccines and issued a report in 2012. The Advisory Committee considered that available evidence strongly supported the use of thimerosal as a preservative for inactivated vaccines, and no safer and equally efficacious alternative had been identified for general use in vaccines. The Administration would continue to monitor the results of studies on the safety of thimerosal-containing vaccines and the supply of registered thimerosal-free vaccines in Hong Kong.

Latest development

13. At the meeting on 25 May 2020, the Administration will brief the Panel on Environmental Affairs on the background and requirements of the Convention, and the scope and approach of the proposed legislation to regulate mercury, mercury compounds and mercury-added products.

Minamata Convention on Mercury

List of relevant papers

Date	Event	Paper
22 October 2018	Policy briefing cum meeting of the Panel on Environmental Affairs	Administration's paper on "2018 Policy Address - Policy initiatives of Environment Bureau: Environmental protection" (LC Paper No. CB(1)10/18-19(01)) (Paragraph 44 is relevant)

Other relevant documents:

Government bureau/organization	Document
United Nations Environment Programme	Minamata Convention on Mercury
Environment Bureau and Environmental Protection Department	Consultation document released in August 2018 on "Legislative Proposal on Regulation of Mercury, Mercury Compounds and Mercury-Added Products"

Hyperlinks to relevant Council questions:

Date	Council Question
17 July 2013	Press release on Council question (written) raised by Mr YIU Si-wing
27 May 2015	Press release on Council question (written) raised by Mr Kenneth LEUNG
20 April 2016	Press release on Council question (written) raised by Mr Dennis KWOK
8 May 2019	Press release on Council question (written) raised by Mr CHEUNG Kwok-kwan