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Panel on Environmental Affairs

Meeting on 25 January 2021

Background brief on the implementation of the Minamata Convention on Mercury in Hong Kong prepared by the Legislative Council Secretariat

Purpose

This paper provides background information on the implementation of the Minamata Convention on Mercury ("the Convention") in Hong Kong, and a brief account of the views and concerns expressed by Members when related issues were discussed at different forums 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 Convention, which is 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 the Hong Kong Special Administrative Region ("HKSAR")) on 16 August 2017.³

4. According to the Administration, some obligations under the Convention are enforceable under the existing administrative and regulatory frameworks or there is de facto compliance by the Government of HKSAR. However, there are four obligations of the Convention that are not enforceable under the existing regulatory or administrative frameworks of Hong Kong:

- (a) to restrict import and export of mercury;
- (b) to prohibit the manufacture, import and export of mercury-added products required to be phased out by the Convention, prevent the incorporation into assembled products of the said mercury-added products, and discourage the manufacture and the distribution in commerce of mercury-added products not covered by any known use of mercury-added products prior to the date of entry into force of the Convention for it;
- (c) to phase out or restrict manufacturing processes in which mercury or mercury compounds are used; and
- (d) to store mercury and mercury compounds in an environmentally sound manner.

5. The Administration commissioned a study in 2015 to review the provisions under the existing local administrative and regulatory frameworks to

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 Pursuant to Article 153 of the Basic Law, the Central People's Government sought the views of HKSAR and decided that the Convention would apply to Hong Kong.

take forward implementation of the Convention. Based on the findings, the Administration proposed a two-phase approach to introduce new regulation to regulate mercury trading as soon as possible for the purpose of implementing the Convention in Hong Kong. Phase One involves the immediate control of import and export of mercury trading mentioned in paragraph 4(a) above, while Phase Two will introduce a new piece of legislation (proposed to be named the Mercury Control Ordinance) to deal with all obligations under the Convention in a holistic manner.

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

6. In August 2018, the Administration 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,⁴ with a view to fulfilling HKSAR's obligations under the Convention. The consultation document was sent alongside a survey form to more than 500 stakeholders including major trade associations, relevant trade sectors, foreign chambers of commerce in Hong Kong, relevant professional institutions, academia and religious institutions, etc. According to the Administration, the need to impose control on mercury trading to fulfil the requirements of the Convention was generally well received at related consultation forums, and respondents of the survey generally supported the introduction of statutory import and export control over mercury under a licensing framework.

Import and Export (General) Regulations (Amendment of Schedules 1 and 2) Order 2020

7. The Import and Export (General) Regulations (Amendment of Schedules 1 and 2) Order 2020 ("Amendment Order") was gazetted on 12 June 2020 to impose immediate control of import and export of mercury trading under Phase One of the proposed two-phase legislative approach to regulate mercury trading. The Amendment Order sought to amend Part 1 of Schedule 1 to the Import and Export (General) Regulations (Cap. 60 sub. leg. A) ("IE(G)R") by adding "Mercury (CAS No. 7439-97-6)" to the list of scheduled articles for import into Hong Kong,⁵ and adding "Mercury (CAS No. 7439-97-6)" to the list of scheduled articles in Part 1 of Schedule 2 to IE(G)R to restrict the export of mercury to "all places outside Hong Kong". The Amendment Order has come

⁴ The consultation document is hyperlinked in the Appendix.

⁵ CAS Number is a unique numerical identifier assigned by the Chemical Abstracts Service to every chemical substance. It is a system accepted among the trade and industry universally for identification of chemicals.

into operation from 1 November 2020.^{6 7}

Major views and concerns expressed by Members

8. At the meeting on 25 May 2020, the Administration briefed the Panel on Environmental Affairs ("EA Panel") 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. At the Council meetings of 17 July 2013, 27 May 2015, 20 April 2016 and 8 May 2019, individual Members asked questions relating to the risks posed to the health of the public by products containing mercury, including compact fluorescent lamps ("CFLs") and preservatives in vaccines. Members' major views and concerns are summarized in the ensuing paragraphs.

Proposed legislation to regulate mercury, mercury compounds and mercury-added products

9. Members did not raise objection to the proposed implementation strategy and supported early introduction of the relevant legislative proposals. Members also enquired about the potential impact of the implementation of the Convention in Hong Kong.

10. The Administration explained that at present, there was no business in Hong Kong that relied heavily on the use of mercury, and no known local use of mercury in mercury-added products and manufacturing processes. There were widely available mercury-free alternatives for most of the mercury-added products in the market. However, trading statistics showed that international trading of mercury had been taking place in Hong Kong, and most, if not all, of such trading activities involved re-export of mercury. The annual amount of mercury imported and re-exported was about 8 tonnes. Such mercury might be used in the manufacture of mercury-added products that were not completely phased out by the Convention yet or in laboratories for research purposes. Only a small amount of the re-exported mercury might be linked to trading activities not in compliance with the Convention requirements. Given that the spirit of the

⁶ No subcommittee was formed in LegCo to study the Amendment Order.

⁷ As the Mercury Control Ordinance to be put in place under Phase Two will control the import and export of mercury, the Administration's plan is to include in the Mercury Control Bill a consequential amendment to repeal "Mercury (CAS No. 7439-97-6)" as one of the specified articles in Schedules 1 and 2 to IE(G)R when the Mercury Control Ordinance comes into operation, as there will be no need for any control under IE(G)R by then.

Convention was to minimize, if not eliminate, the international supply and trading of mercury, it was still necessary to impose statutory control on mercury trading activities in Hong Kong.

Compact fluorescent lamps

11. 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.

12. 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.

Preservatives in vaccines

13. 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.

14. The Administration advised 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

15. At the meeting on 25 January 2021, the Administration will brief EA Panel on its plan for implementing the Minamata Convention in Hong Kong and the proposed Mercury Control Bill.

Council Business Division 1
Legislative Council Secretariat
20 January 2021

Implementation of the Minamata Convention on Mercury in Hong Kong

List of relevant papers

Date	Event	Paper
22 October 2018	Policy briefing cum meeting of the Panel on Environmental Affairs ("EA Panel")	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)
25 May 2020	Meeting of EA Panel	Administration's paper on "Implementation of the Minamata Convention on Mercury in Hong Kong" (LC Paper No. CB(1)655/19-20(05)) Minutes of meeting (LC Paper No. CB(1)932/19-20)

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