

**For discussion on**  
25 January 2021

**LEGISLATIVE COUNCIL**  
**PANEL ON ENVIRONMENTAL AFFAIRS**

**New Legislation to Implement the**  
**Minamata Convention on Mercury in Hong Kong**

**PURPOSE**

This paper informs Members of the Government’s proposal to introduce new legislation to implement the Minamata Convention on Mercury (“the Convention”).

**BACKGROUND**

2. We briefed Members on 25 May 2020 on the implementation of the Convention which was developed by the United Nations Environment Programme to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. Mercury is a naturally occurring and highly toxic heavy metal that can be transported in the atmosphere to places at a distance or bioaccumulated in the ecosystems, posing a serious threat to human health and the environment.

3. The Convention addresses direct mining of mercury and its import and export; use of mercury in mercury-added products and manufacturing processes; emissions to the atmosphere; releases to land and water; safe storage of mercury as well as disposal of mercury waste. The obligations under the Convention are summarised at **Annex A**. The People’s Republic of China became one of the Parties to the Convention when the Convention entered into force on 16 August 2017. Pursuant to Article 153 of the Basic Law, the Central People’s Government (“CPG”) sought the views of the Government of the Hong Kong

Special Administrative Region (“HKSAR”) and decided that the Convention would apply to the HKSAR<sup>1</sup>.

4. In May 2020, we consulted Members on our proposed two-phase approach to introduce statutory control on mercury. Phase I involves the control of import and export of mercury by amending Part 1 of Schedule 1 and Part 1 of Schedule 2 to the Import and Export (General) Regulations (Cap. 60 sub. leg. A) (“IE(G)R”). The Import and Export (General) Regulations (Amendment of Schedules 1 and 2) Order 2020 to control the import and export of elemental mercury was made in June 2020 and came into operation on 1 November 2020.

5. Phase II involves the introduction of a new piece of legislation, i.e. the Mercury Control Bill (“the Bill”), to ensure Hong Kong’s compliance with the obligations under the Convention that are not enforceable under the existing legislative or administrative frameworks. Specifically, the Bill will include the following major provisions to fulfill the obligations under the Convention:

- (1) restricting the import and export of mercury by imposing a permit control system;
- (2) prohibiting the import, export and manufacture of mercury-added products as specified in the Convention<sup>2</sup>;
- (3) prohibiting or restricting the manufacturing processes in which mercury or mercury compounds are used as specified in the Convention; and
- (4) imposing permit control on the environmentally sound storage and use of mercury and mercury compounds.

## **Key Elements of the Bill**

### *Control on the Import/ Export of Mercury*

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<sup>1</sup> Article 153 of the Basic Law stipulates that the application to the HKSAR of international agreements to which the People's Republic of China is or becomes a party shall be decided by the Central People’s Government, in accordance with the circumstances and needs of the HKSAR, and after seeking the views of the Government of the HKSAR.

<sup>2</sup> The Bill would also prohibit the sale and supply of mercury-added products as specified in the Convention three years after the Bill comes into effect.

6. The Convention controls the import and export of mercury which includes mixtures of mercury and mercury alloys with a mercury concentration of at least 95% by weight. The Bill will introduce a permit control system to regulate the import and export of mercury. Import and export of mercury will require the issue of a permit by the Director of Environmental Protection who will consider the following factors before issuing a permit:

- (a) Import permit: whether the source of the mercury is allowed under the Convention (i.e. the mercury should not come from primary mercury mining conducted on or after the date of entry into force of the Convention on 16 August 2017, or excess mercury from the decommissioning of chlor-alkali facilities); whether the use of the mercury is allowed under the Convention (e.g. whether the mercury is used for laboratory-scale research or as a reference standard, or for manufacture of mercury-added products not disallowed under the Convention); whether the import of mercury is agreeable to the CPG; and whether the imported mercury will be stored in an environmentally sound manner; and
- (b) Export permit: whether the use of the mercury is allowed under the Convention (e.g. whether the mercury is used for laboratory-scale research or as a reference standard, or for manufacture of mercury-added products not disallowed under the Convention); whether the import of the mercury involved is agreeable to the importing side; and whether the exported mercury will be stored in an environmentally sound manner.

*Phase out Mercury-Added Products Listed in the Convention*

7. The Convention requires all Parties to the Convention to ban the manufacture, import and export of mercury-added products listed in the Convention. “Convention-listed mercury-added products” are set out at **Annex B**. Pursuant to this requirement, the Bill will strictly prohibit the manufacture, import and export of the Convention-listed mercury-added products, as well as the incorporation of these mercury-added products into assembled products (e.g. incorporation of mercury-containing batteries into electrical

devices). The Bill will further prohibit the supply of the Convention-listed mercury-added products three years after the Bill comes into effect, in order to allow the trade to exhaust the existing stock of mercury-added products within a reasonable period of time.

#### *Control the Use of Mercury and Mercury Compounds in Manufacturing Processes*

8. The Convention prohibits or restricts the use of mercury and mercury compounds in the manufacturing processes listed in the Convention. “Convention-listed manufacturing processes” are set out at **Annex C**. According to the result of a survey, there is no manufacturing process using mercury or mercury compounds in Hong Kong. Nevertheless, in order to fully implement the Convention which prohibits the use of mercury or mercury compounds in the Convention-listed manufacturing processes, the Bill will prohibit such manufacturing processes from taking place in Hong Kong.

#### *Control the Storage of Mercury and Mercury Compounds*

9. The Convention requires the Parties to the Convention to take measures to ensure that relevant parties store mercury (which includes mixtures of mercury and mercury alloys with a mercury concentration of at least 95% by weight) and mercury compounds in an environmentally sound manner. The Bill will introduce a permit system to regulate the storage of mercury and mercury compounds<sup>3</sup>. It will be an offence if any person stores mercury or mercury compounds without a valid permit, or without complying with the condition(s) of the permit. The Bill will also introduce a permit system to regulate the use of mercury and mercury compounds. The Government will issue relevant guidelines on the proper storage and use of mercury and mercury compounds.

#### *Consequential Amendment to IE(G)R*

10. As the Bill will control the import and export of mercury and provide the legal basis for a permit control system, the interim control of the import and

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<sup>3</sup> For the purpose of the permit for storage of mercury and mercury compounds, mercury compounds include mercury (I) chloride, mercury (II) oxide, mercury (II) sulphate, mercury (II) nitrate, cinnabar and mercury sulphide.

export of mercury under IE(G)R mentioned in paragraph 4 above will become obsolete after the Mercury Control Ordinance comes into effect. We will therefore include in the Bill a consequential amendment to repeal the control of specified article “Elemental mercury (Hg(0), Chemical Abstracts Service registry number 7439-97-6), other than that contained in and forming part of a manufactured article” in Part 1 of Schedule 1 and Part 1 of Schedule 2 to IE(G)R when the Mercury Control Ordinance comes into operation.

#### *Possible Expansion of the List of Regulated Products and Processes*

11. The Conference of the Parties to the Convention may bring new mercury compounds, mercury-added products and manufacturing processes using mercury or mercury compounds under the control of the Convention as and when necessary. To allow Hong Kong to make timely response to such changes, we propose allowing flexibility for the Secretary for the Environment to update the lists of regulated mercury compounds, mercury-added products and manufacturing processes by amending the relevant Schedules to the Bill. Such amendments to the relevant Schedules to the Bill will be subsidiary legislation subject to negative vetting by the Legislative Council (“LegCo”).

### **ENFORCEMENT PLAN**

12. The Environmental Protection Department (“EPD”) will be responsible for implementing and enforcing the provisions of the Bill, including the administration of the permit systems for regulating the import/export of mercury and the storage and use of mercury and mercury compounds. The Customs and Excise Department (“C&ED”) will conduct import and export inspections of the articles set out in the relevant Schedules to the Bill, including mercury and restricted mercury-added products, at entry/exit points. Cases that require follow-up actions, including those detected by C&ED, will be handled by EPD which will be responsible for investigation, prosecution and disposal actions for any seized mercury and mercury-added products.

### **PUBLIC CONSULTATION**

13. To prepare for the implementation of the Convention in Hong Kong, EPD published the consultation document and conducted a series of consultations with members of the public and relevant trades and stakeholders in 2018. We consulted 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., through questionnaires. We also held a number of consultation fora for the public and major trade associations. Respondents generally supported the Government's proposal to introduce a new piece of legislation to align with the international practices.

14. Besides, we consulted the Advisory Council on the Environment in July 2019 and the Council supported the Government's proposal. The Government briefed this Panel on the background and requirements of the Convention in May 2020 and consulted Members on our proposal. The Panel supported the proposal.

## **WAY FORWARD**

15. To fully implement the requirements of the Convention as soon as practicable, we plan to introduce the Bill into the LegCo in May 2021.

**Environment Bureau**  
**Environmental Protection Department**  
**January 2021**

**List of Obligations under the Minamata Convention on Mercury**

<b>Obligations</b>	<b>Existing Legislative and Administrative Frameworks</b>
(a) restrict mercury mining; and (b) control use of mercury in artisanal and small-scale gold mining	<ul style="list-style-type: none"> <li>● All mines in Hong Kong are property of the Government.</li> <li>● The Mining Ordinance (Cap. 285) effectively controls all prospecting and mining activities in Hong Kong.</li> <li>● Based on mineral resources record, mercury has not been identified in Hong Kong, nor is there any reasonable prospect for gold mining.</li> </ul>
(c) phase down the use of dental amalgam	<ul style="list-style-type: none"> <li>● The dental profession, the academia and the Government have agreed to take on board the recommended measures in the Convention to phase down the use of dental amalgam<sup>Note</sup>.</li> </ul>
(d) control emissions of mercury and mercury compounds to the atmosphere	<ul style="list-style-type: none"> <li>● The Air Pollution Control Ordinance (Cap. 311), coupled with the use of best environmental practices by relevant sources, can effectively control mercury emissions from existing sources and new sources which fall within the source categories as listed in the Convention.</li> </ul>
(e) control releases of mercury and mercury compounds to land and water	<ul style="list-style-type: none"> <li>● The Water Pollution Control Ordinance (Cap. 358), which sets out the effluent standards for discharges to all types of environmental waters, effectively controls</li> </ul>

Note The Convention requires the Parties to the Convention to take measures to phase down the use of dental amalgam, which shall include two or more of the measures listed by the Convention. A “Consensus Statement on the Minamata Convention on Mercury and Phase Down of Dental Amalgam in Hong Kong” was jointly promulgated by the Department of Health, the Dental Council of Hong Kong, the Faculty of Dentistry of the University of Hong Kong, the College of Dental Surgeons of Hong Kong and the Hong Kong Dental Association, which can be downloaded from the following link:- [https://www.dh.gov.hk/english/main/main\\_ds/files/consensus\\_statement.pdf](https://www.dh.gov.hk/english/main/main_ds/files/consensus_statement.pdf). The recommendations made under the Statement include three of the measures listed by the Convention.

Obligations	Existing Legislative and Administrative Frameworks
	<p>releases of mercury and mercury compounds to water. The Waste Disposal Ordinance (Cap. 354) effectively controls the releases of mercury and mercury compounds on land, which are regarded as chemical wastes.</p>
(f) restrict import and export of mercury (including mercury mixtures and mercury alloys)	<ul style="list-style-type: none"> <li>• The relevant Schedules to the Import and Export (General) Regulations (Cap. 60 sub. leg. A) have been amended as an interim measure to restrict import and export of mercury. The import and export of mercury mixtures and mercury alloys are not yet subject to any existing statutory control and are proposed to be tackled by the Mercury Control Bill.</li> </ul>
(g) phase out certain mercury-added products	<ul style="list-style-type: none"> <li>• This is currently not subject to legislative control and is proposed to be tackled by the Mercury Control Bill.</li> </ul>
(h) phase out or restrict certain manufacturing processes in which mercury or mercury compounds are used	<ul style="list-style-type: none"> <li>• This is currently not subject to legislative control and is proposed to be tackled by the Mercury Control Bill.</li> </ul>
(i) store mercury (including mercury mixtures and mercury alloys) and certain mercury compounds in an environmentally sound manner	<ul style="list-style-type: none"> <li>• This is currently not subject to legislative control and is proposed to be tackled by the Mercury Control Bill.</li> </ul>
(j) manage mercury wastes in an environmentally sound manner	<ul style="list-style-type: none"> <li>• Mercury waste is categorised as chemical waste under the Waste Disposal Ordinance (Cap. 354) which effectively controls its import, export, transboundary movement and disposal.</li> </ul>



**Minamata Convention on Mercury**  
**Mercury-added products Listed in the Convention**

1.	Batteries, except for button zinc silver oxide batteries with a mercury content of less than 2%, button zinc air batteries with a mercury content of less than 2%
2.	Switches and relays, except very high accuracy capacitance and loss measurement bridges and high frequency radio frequency switches and relays in monitoring and control instruments with a maximum mercury content of 20 mg per bridge, switch or relay
3.	Compact fluorescent lamps (CFLs) for general lighting purposes that do not exceed 30 watts with a mercury content exceeding 5 mg per lamp burner
4.	Linear fluorescent lamps (LFLs) for general lighting purposes: (a) Triband phosphor of less than 60 watts with a mercury content exceeding 5 mg per lamp; (b) Halophosphate phosphor not exceeding 40 watts with a mercury content exceeding 10 mg per lamp
5.	High pressure mercury vapour lamps (HPMV) for general lighting purposes
6.	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for electronic displays: (a) short length ( $\leq 500$ mm) with mercury content exceeding 3.5mg per lamp (b) medium length ( $> 500$ mm and $\leq 1,500$ mm) with mercury content exceeding 5 mg per lamp (c) long length ( $> 1,500$ mm) with mercury content exceeding 13 mg per lamp
7.	Cosmetics (with mercury content above 1 ppm), including skin lightening soaps and creams, and not including eye area cosmetics where mercury is used as a preservative and no effective and safe substitute preservatives are available
8.	Pesticides, biocides and topical antiseptics
9.	The following non-electronic measuring devices except non-electronic measuring devices installed in large-scale equipment

or those used for high precision measurement, where no suitable mercury-free alternative is available:

- (a) barometers;
- (b) hygrometers;
- (c) manometers;
- (d) thermometers;
- (e) sphygmomanometers.

**Minamata Convention on Mercury**  
**Manufacturing Processes using**  
**Mercury or Mercury Compounds to be Controlled under the Convention**

<b>Processes in which Use of Mercury or Mercury Compounds are Prohibited</b>
1. Chlor-alkali production
2. Acetaldehyde production in which mercury or mercury compounds are used as a catalyst

<b>Processes in which Use of Mercury or Mercury Compounds are Restricted</b>
1. Production of vinyl chloride monomer
2. Production of sodium or potassium methylate or ethylate
3. Production of polyurethane using mercury containing catalysts