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## United Nations Environment Programme

Conference of the Parties to the  
Minamata Convention on Mercury  
Third meeting  
Geneva, 25–29 November 2019

### Decision adopted by the third Conference of the Parties to the Minamata Convention on Mercury

#### MC-3/5: Mercury waste thresholds

*The Conference of the Parties,*

*Welcoming* the outcome of the work of the group of technical experts on mercury waste thresholds,

*Taking note of* decision BC-14/8, on technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury or mercury compounds, adopted by the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal at its fourteenth meeting,

1. *Decides* that no threshold needs to be established for mercury waste falling under subparagraph 2 (a) of article 11, and that waste listed in table 1 of the annex to the present decision shall be regarded as such mercury waste;
2. *Also decides* that no threshold needs to be established for mercury waste falling under subparagraph 2 (b) of article 11, and that mercury-added products that are disposed of, are intended to be disposed of or are required to be disposed of, including those listed in table 2 of the annex to the present decision, will be regarded as such mercury waste;
3. *Requests* the group of technical experts to further substantiate its present recommendation that a total concentration threshold may be appropriate for mercury wastes falling under subparagraph 2 (c) of article 11, including a technical analysis of options and the consideration of possible impacts;
4. *Requests* the secretariat, in cooperation with the artisanal and small-scale gold mining partnership area, to seek comments from parties and other stakeholders to improve the guidance on the preparation of national action plans for artisanal and small-scale gold mining regarding management of tailings from such mining, with a view to presenting a revised version of the guidance for consideration and possible adoption by the Conference of the Parties at its fourth meeting;
5. *Decides* that, at present, there is no need to develop thresholds for overburden and waste rock from mining other than primary mercury mining, and that thresholds for tailings from mining other than primary mercury mining should be established in a two-tiered approach using a total concentration threshold as an initial screen and a leaching threshold as the second tier, and requests the group of technical experts to do further work to establish the thresholds;

6. *Also decides* to extend the mandate of the group of technical experts until the fourth meeting of the Conference of the Parties, and calls upon the secretariat to cooperate with the secretariat of the Basel, Stockholm and Rotterdam Conventions to facilitate cooperation between the members of the technical expert group and of the small intersessional working group established under the Basel Convention to update the technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury or mercury compounds;<sup>1</sup>

7. *Further decides* to extend the mandate of the group of technical experts to:

- (a) Conduct a technical analysis of threshold options, considering the impacts of applying the proposed options, and make recommendations;
- (b) Develop thresholds for mercury waste falling under subparagraph 2 (c) of article 11;
- (c) Conduct analysis of whether tailings from artisanal and small-scale gold mining should be subject to a threshold, taking into account the relationship between articles 11 and 7;
- (d) Recommend thresholds for tailings from industrial-scale non-ferrous metal mining other than primary mercury mining;
- (e) Subject to completion of items (a) to (d) above, review, and possibly recommend a revision of, the lists of mercury waste falling under subparagraphs 2 (a) to (c) of article 11, set out in tables 1, 2 and 3 of the annex to the present decision, as appropriate;

8. *Invites* parties to confirm the current members of the group of technical experts, nominate new members, or replace members as appropriate through the bureau members representing regions, taking into account the need for expertise in areas covered by the mandate of the group;

9. *Decides* that the group of technical experts will work by electronic means and will meet face to face once to address the matters mentioned in the previous paragraphs of the present decision, will make any necessary updates to the lists in tables 1, 2 and 3 of the annex to the present decision, and will report on its work to the Conference of the Parties at its fourth meeting;

10. *Requests* the following additional procedural provisions to guide the group's work:

- (a) All the experts nominated by the parties and present will work on the issues subject to the mandate of the group, avoiding separate treatment of the technical issues;
- (b) All decisions of the group of technical experts should be agreed on the basis of consensus. In case no consensus is reached, the secretariat should take note of this lack of consensus, register the discussion and the different positions, and note the level of support for each alternative;
- (c) Prior to the meeting, the secretariat and the chair of the group of technical experts will provide to the parties a provisional agenda and a scenario note in preparation for the meeting;

11. *Encourages* the parties and other stakeholders to contribute to the process of updating the technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury or mercury compounds by providing comments on the draft updated guidelines when invited to do so;

12. *Invites* the appropriate bodies of the Basel Convention to take into account the present decision in updating the technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury or mercury compounds;

13. *Requests* the secretariat to continue to support the work of the group of technical experts.

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<sup>1</sup> UNEP/CHW.12/5/Add.8/Rev.1.

## Annex to decision MC-3/5

### Lists of mercury waste falling under paragraph 2 of article 11

Table 1

#### List of mercury waste consisting of mercury or mercury compounds<sup>a</sup> (subparagraph 2 (a) of article 11)

<i>Type of waste</i>	<i>Waste source<sup>b</sup></i>
Recovered elemental mercury <sup>c</sup>	<p>Mining activity:</p> <ul style="list-style-type: none"> <li>Tailings from artisanal and small-scale gold mining</li> </ul> <p>Mercury captured from:</p> <ul style="list-style-type: none"> <li>Non-ferrous metals roasting and smelting processes</li> <li>Crude oil and natural gas processing</li> </ul> <p>Treatment of:</p> <ul style="list-style-type: none"> <li>Mercury-added products upon becoming waste</li> <li>Waste contaminated with mercury or mercury compounds</li> <li>Contaminated environmental media</li> </ul> <p>Treatment of waste from:</p> <ul style="list-style-type: none"> <li>Chlor-alkali,<sup>d</sup> alcoholates (e.g., sodium or potassium methylate or ethylate), dithionite and ultrapure potassium hydroxide solution production with mercury technology, including decommissioning facilities</li> <li>Polyurethane, vinyl chloride monomer, acetaldehyde production using a mercury-containing catalyst</li> </ul>
Elemental mercury	Mercury stockpile (e.g., industries, laboratories, dental offices, educational and research institutions, government institutions, landfills, dumpsites, lighthouses)
Mercury (I) chloride and mercury (II) chloride	<p>Primary zinc, lead, copper and gold roasting and smelting processes</p> <p>Reagent</p> <p>Calomel electrode for electrochemical measurements</p> <p>Medicine/pharmaceuticals</p> <p>Vinyl chloride monomer catalyst – mercury (II) chloride</p> <p>Stockpiles</p>
Mercury (II) oxide (mercuric oxide)	<p>Dry cell batteries, pigment in paints and glass modifiers, fungicide, cosmetics, laboratory reagent, antifouling paints</p> <p>Stockpiles</p>
Mercury (II) sulfate (mercuric sulfate)	<p>Lab reagent, catalyst used for the production of acetaldehyde</p> <p>Stockpiles</p>
Mercury (II) nitrate (mercuric nitrate)	<p>Oxidizing agent, laboratory reagent</p> <p>Stockpiles</p>
Cinnabar concentrate	<p>Primary mercury mining</p> <p>Stockpiles</p>
Mercury sulfide	<p>Pigment</p> <p>Stabilization of waste mercury for storage and/or disposal</p> <p>Stockpiles</p>

<sup>a</sup> The Convention defines a mercury compound as any substance consisting of atoms of mercury and one or more atoms of other chemical elements that can be separated into different components only by chemical reactions.

<sup>b</sup> A facility or activity where waste is likely to be generated or accumulated.

<sup>c</sup> Recovered mercury as described in subparagraph 3 (b) of article 11.

<sup>d</sup> Recovery can sometimes occur without treatment.

Table 2

**Non-exhaustive list of waste containing mercury or mercury compounds (subparagraph 2 (b) of article 11)<sup>a</sup>**

<i>Type of waste</i>	<i>Waste source<sup>b</sup></i>
Non-electronic measuring devices containing mercury (barometers, hygrometers, manometers, thermometers, sphygmomanometers)	Hospitals, clinics, healthcare facilities (human and animal), pharmacies, households, schools, laboratories, universities, industrial facilities, airports, meteorological stations, ship recycling facilities
Electrical and electronic switches, contacts, relays and rotating electrical connectors with mercury	Dismantling facilities of waste electrical and electronic equipment (relays, connectors and switches), industrial facilities (attached to boilers), households, offices
Fluorescent bulbs, high intensity discharge (HID) bulbs (mercury vapour bulbs, metal halide and high-pressure sodium bulbs), neon/argon lamps	Households, industrial and commercial facilities, automobile facilities, collection points
Batteries/accumulators containing mercury	Households, industrial and commercial facilities, collection points
Biocides and pesticides containing mercury and their formulations and products	Agricultural, horticultural, industrial and commercial facilities (including stockpiles), laboratories
Paints and varnishes containing mercury	Industrial and commercial facilities, households
Pharmaceuticals containing mercury for human and veterinary uses, including vaccines	Industrial and healthcare facilities (including stockpiles), livestock industry
Cosmetics and related products containing mercury	Industrial facilities (including stockpiles)
Dental amalgam	Dental offices, dental schools, crematoria
Scientific instrument used for the calibration of medical or scientific devices containing mercury	Laboratories, institutions <sup>c</sup> (including stockpiles)

<sup>a</sup> Mercury-added products listed in the “type of waste” column of this table are regarded as waste under subparagraph 2 (b) of article 11 when they are disposed of, are intended to be disposed of, or are required to be disposed of by the provisions of national law or the Minamata Convention.

<sup>b</sup> A facility or activity where waste is likely to be generated or accumulated.

<sup>c</sup> Institutions include public and private ones.

Table 3  
**Indicative list of waste contaminated with mercury or mercury compounds (subparagraph 2 (c) of article 11)<sup>a</sup>**

<i>Type of waste</i>	<i>Waste source<sup>b</sup></i>
Waste from industrial pollution control devices or cleaning of industrial off-gases <sup>c</sup>	Flue gas from sources such as: Extraction and use of fuels/energy sources Smelting and roasting processes in the production of non-ferrous metals Production processes with mercury impurities Recovery of precious metals from waste electrical and electronic equipment Coal combustion Waste incineration and co-incineration Crematoria
Bottom ash	Coal combustion Biomass fired power and heat generation Waste incineration
Wastewater treatment residues/slurries <sup>d</sup>	Treatment of wastewater from: Extraction and use of fuels/energy Production of mercury-added products Manufacturing processes in which mercury or mercury compounds are used Primary non-ferrous metals production Production processes with mercury impurities Recovery of precious metals from waste electrical and electronic equipment Waste incineration, co-incineration and other thermal treatment Crematoria Healthcare facilities Controlled landfills leachate Uncontrolled dumping of wastes Agricultural facilities
Sludge	Separator tanks and sedimentary sand tanks for refining of crude oil, natural gas production and processing, drilling, ship cleaning, chemical processes, etc. Treatment of wastes contaminated with mercury (e.g., chemical precipitation and chemical oxidation)
Oil and gas refining catalyst	Refining of crude oil Processing of natural gas
Tailings and extraction process residues	Primary mercury mining Artisanal and small-scale gold mining
Rubble, debris and soil <sup>e</sup>	Construction/demolition Remediation of contaminated sites
Other waste from manufacturing processes using mercury or mercury compounds <sup>f</sup>	Chlor-alkali production with mercury technology Production of alcoholates (e.g., sodium or potassium methylate or ethylate) Dithionite and ultrapure potassium hydroxide solution Vinyl chloride monomer (VCM) production with mercuric chloride (HgCl <sub>2</sub> ) catalyst Acetaldehyde production with mercury sulphate (HgSO <sub>4</sub> ) catalyst, etc.
Other waste from the manufacturing of mercury-added products <sup>g</sup>	Manufacturing of mercury-added products
Other waste from natural gas cleaning <sup>h</sup>	Natural gas cleaning
Wastes from waste treatment facilities <sup>i</sup>	Waste treatment facilities

<sup>a</sup> Wastes listed in this table are regarded as mercury waste when they exceed thresholds. Waste exceeding the established threshold but not listed here would also be considered mercury waste.

<sup>b</sup> A facility or activity where waste is likely to be generated or accumulated.

<sup>c</sup> Includes filters and activated carbon.

<sup>d</sup> Include filters and resins.

<sup>e</sup> Contaminated soil transported off-site is regarded as waste.

<sup>f</sup> Mercury cells, mercury recovery units (retort), waste catalysts, decommissioning or demolition waste, personal protective equipment, elements used to contain mercury spills, etc.

<sup>g</sup> Process residues, demolition waste, etc.

<sup>h</sup> Scale removed from pipework and pipe cleaning equipment, etc.

<sup>i</sup> Waste treated to stabilize/solidify mercury in the waste, fluorescent coatings, metal and glass.