

## **ZERO MERCURY WORKING GROUP (ZMWG) RESPONSE AND RECOMMENDATIONS TO THE DRAFT ELEMENTS PAPER January 2011**

ZMWG welcomes the draft elements paper prepared by UNEP for INC 2, and gratefully acknowledges the efforts undertaken toward its preparation. In order to achieve meaningful results, the mercury convention will need to be significantly more ambitious than the draft elements paper. Nevertheless, ZMWG recommends that INC 2 promptly utilize the draft elements paper as the basis for initiating negotiations.

In developing the mercury treaty text, the INC must strengthen critical portions of the elements paper to substantially reduce mercury use and releases. These sections include, but are not limited to, draft element 7 and Annex C on mercury products, Article 9 on artisanal and small scale gold mining (ASGM), and draft element 10 and Annex E covering atmospheric emissions.

With respect to draft element 7, ZMWG supports the negative list approach to phasing out mercury use in products, because of its advantages in discouraging new uses and its operational shift of the burden of proof to mercury users. In this document, our recommended revisions to the elements paper build off the positive list approach so that INC delegates can readily identify the changes needed to draft element 7 and Annex C if the positive list approach is pursued. ZMWG can support the positive list approach, but only if the list of products in Annex C is expanded, and a streamlined process for reviewing and revising the Annex is created. Significant omissions in Annex C include soaps and cosmetics, a documented source of adverse health effects in the developing world. The production of polyurethane elastomers (i.e., the coatings on gym floors), estimated to account for over 100 MT of mercury use annually and for which non-mercury alternatives are available for most applications, can be added to either Annex C or D.

Given the huge amounts of mercury used and released during ASGM, Parties must be required to take steps toward reducing uses and releases. While flexibility regarding the particular strategies for achieving reductions may be appropriate, the need for action is not. Parties with ASGM must be required to prepare and implement action plans which specify how use and release reductions will be achieved, including when and how the worst mercury management practices will be eliminated, a long-term objective for eliminating mercury use in ASGM, a mechanism for identifying and addressing heavily contaminated sites, and opportunities for stakeholder (including those working on poverty alleviation) involvement in plan development and implementation.

Regarding draft element 10, best available techniques (BAT) must be applied to existing as well as new priority air emission sources, although what is considered BAT may differ for existing facilities and may involve consideration of existing pollution control equipment already installed. Without mandatory emission reduction obligations applicable to existing facilities, global mercury contamination is likely to continue indefinitely, given the large number of existing facilities within priority source categories.

We recommend a dedicated fund as part of the financial mechanism, with the expectation that the fund will provide substantial resources to meet treaty obligations, be operated in a way that encourages compliance and discourages non-compliance, targets resources to Convention priorities, and includes broad Party representation in its governing structure.

Revisions to draft element 13 are needed to address the needs of exposed populations at contaminated sites. These needs include access to information regarding their exposures and potential risks, and building capacity to conduct health investigations around contaminated sites where needed. Lastly, the draft elements paper does not address issues related to liability and victims' compensation, a significant oversight given the potential for mercury product and waste dumping to areas where vulnerable populations reside, and the potential for companies to leave behind contaminated sites, particularly in the developing world.

Attached are detailed ZMWG recommendations to the elements paper, in the form of redline/strikeout changes. Explanations of the changes are provided at the end of each draft element. The UNEP comments in the draft elements paper were deleted for clarity purposes.

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The **Zero Mercury Working Group** (ZMWG) is an international coalition of more than 90 public interest environmental and health non-governmental organizations from 45 countries from around the world formed in 2005 by the European Environmental Bureau and the Mercury Policy Project. *ZMWG strives for zero supply, demand, and emissions of mercury from all anthropogenic sources, with the goal of reducing mercury in the global environment to a minimum. Our mission is to advocate and support the adoption and implementation of a legally binding instrument which contains mandatory obligations to eliminate where feasible, and otherwise minimize, the global supply and trade of mercury, the global demand for mercury, anthropogenic releases of mercury to the environment, and human and wildlife exposure to mercury.* ([www.zeromercury.org](http://www.zeromercury.org))

For more information please contact:

Elena Lymberidi-Settimo, Project Coordinator 'Zero Mercury Campaign', European Environmental Bureau/ZMWG, [elena.lymberidi@eeb.org](mailto:elena.lymberidi@eeb.org), T: +322 2 891301, [www.zeromercury.org](http://www.zeromercury.org), [www.eeb.org](http://www.eeb.org)

Michael Bender, Director, Mercury Policy Project/ZMWG, [mercurypolicy@aol.com](mailto:mercurypolicy@aol.com), T: +1 802 2239000, [www.mercurypolicy.org](http://www.mercurypolicy.org),

While in Chiba, Japan – please contact:

Rachel Kamande, Project officer 'Zero Mercury Campaign', European Environmental Bureau/ZMWG, [Rachel.kamande@eeb.org](mailto:Rachel.kamande@eeb.org), T: +32 2 2891308, Mobile:+32 477 367289

Linda E. Greer, Ph.D., Director - Health Program, Natural Resources Defense Council/ZMWG, [lgreer@nrdc.org](mailto:lgreer@nrdc.org), Mobile: 1-202-281-4098

# Draft elements of a comprehensive and suitable approach to a global legally binding instrument on mercury

## Preamble

[\[Placeholder\]](#)

## Part I: Introduction

### 1. Objective

~~The objective of this Convention is to protect human health and the environment from anthropogenic releases of mercury and its compounds.~~

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*Basis for Recommended ZMWG Revision: Since the INC has agreed to defer discussion of objective language, the text in the elements paper should be deleted, and the preamble approach taken by simply inserting “placeholder”. Otherwise, the INC may feel compelled to debate the objective text in the elements paper, since it is very weak language as it fails to establish the fundamental goals of eliminating mercury uses and releases, even where it is feasible to do so.*

### 2. Definitions

For the purposes of this Convention:

(a) “Artisanal and small-scale gold mining” means gold mining conducted ~~informally~~ by individual miners or small enterprises using rudimentary methods and processes, with limited capital investment and production;

(b) “Environmentally sound management of mercury wastes” means management of mercury wastes in a manner that includes all practicable steps to ensure that human health and the environment are protected against the adverse effects that may result from such wastes;<sup>1</sup>

(c) “Environmentally sound storage of mercury ~~and mercury compounds~~” means storage of mercury ~~to prevent the reuse or redistribution of the mercury and mercury compounds~~ in a manner consistent with the guidance on environmentally sound storage adopted, updated or revised by the Conference of the Parties under Article 4;

(d) “Mercury” means ~~elemental mercury (Hg(0)) or mixtures of elemental mercury with other substances, including alloys of mercury, with a mercury concentration of at least 95 per cent by weight;~~

(e) “Mercury ~~and mercury compounds~~” means ~~the substances listed in Annex B~~ any substance composed of identical molecules consisting of atoms of mercury and one or more chemical elements;

(f) “Mercury-added product” means a product or product component that contains mercury or a mercury compound intentionally added to provide a specific characteristic, appearance or quality, to perform a specific function or for any other reason;

(g) “Party” means a State or regional economic integration organization that has consented to be bound by this Convention and for which the Convention is in force;

(h) “Parties present and voting” means Parties present and casting an affirmative or negative vote at a meeting of the Parties;

<sup>1</sup> Based on the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, art. 2, para. 8, definition of “environmentally sound management of hazardous wastes or other wastes”.

- (i) “Primary mercury mining” means mining in which the principal material sought is mercury or mercury-containing ore;
- (j) “Regional economic integration organization” means an organization constituted by sovereign States of a given region to which its member States have transferred competence in respect of matters governed by this Convention and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to this Convention;
- (k) “Use allowed to the Party under this Convention” means any use of mercury or mercury compounds:
  - (i) In a mercury-added product that is not listed in Annex C;
  - (ii) For a manufacturing process that is not listed in Annex D; or
  - (iii) Listed in Annex C or Annex D for which the Party is registered for an allowable-use exemption, as provided in Article 14; or
  - (iv) For laboratory-scale research or as a reference standard.

*Basis for Recommended ZMWG Revisions: Technical corrections are proposed to the definition of ASGM to reflect both the formal and informal status of the activity, and to the definition of allowable use to clarify small amounts of mercury may be used for research purposes. The definition of mercury is revised to mean only elemental mercury, and thus facilitate later references in the text, such as in Article 4, where only elemental mercury is meant to be covered. The revision to the definition of environmentally sound storage clarifies the objective of the storage. The definition of mercury compounds is expanded to include all potentially relevant compounds related to releases, waste, and contaminated sites, thus the term has a broad scope, except with reference to the trade of the specified mercury compounds listed in Annex B bis.*

## Part II: Measures to reduce the supply of mercury

### 3. Mercury supply sources

1. Each Party with primary mercury mining within its territory at the date of entry into force of this Convention for it shall:
  - (a) Not allow the export of any mercury or mercury compounds produced from primary mercury mining;
  - (b) ~~Provide~~Include in its reports submitted pursuant to Article 22 information on any primary mercury mining within its territory, ~~including~~ at a minimum:
    - (i) Its location; and
    - (ii) Estimated quantities, destinations and intended uses, where known, of mercury or mercury compounds produced annually by such mining; and
  - (c) Eliminate such mining within ~~three~~three years of the date of entry into force of this Convention for it.
2. Each Party shall not allow primary mercury mining that was not being conducted within its territory at the date of entry into force of this Convention for it.
3. Each Party shall:
  - (a) Identify the mercury supply sources listed in Annex A that are located within its territory;
  - (b) Not allow the sale, distribution in commerce, or use of mercury or mercury compounds from supply sources listed in Annex A except for a use allowed to the Party under this Convention;
  - (c) Not allow the export of mercury or mercury compounds from supply sources listed in Annex A, except as provided in Article 5;
  - (d) Ensure that all mercury from supply sources listed in Annex A that is not sold, distributed in commerce, used or exported pursuant to subparagraph (b) or (c) is stored in an environmentally sound manner as set out in Article 4; and

- (e) Include in its reports submitted pursuant to Article 22 information on the quantities of mercury and mercury compounds:
- (i) Produced from each category of supply source identified pursuant to subparagraph (a); ~~and~~
  - (ii) Sold, distributed, used, exported or stored pursuant to subparagraphs (b), (c) and (d); and
  - (iii) Such other information as the Conference of the Parties decides may be necessary to monitor the global use and trade of mercury, or to assist in determining the effectiveness of this Convention.

*Basis for Recommended ZMWG Revisions: Proposed changes to Paragraph 1 would require the phase out of primary mining within three years from the entry into force of the Convention. Primary mining warrants rapid termination because it adds new mercury to the global pollution pool, and the activity itself releases significant amounts of mercury into the environment. The various additions of "mercury compounds" are needed due to the revised definition of "mercury" in Article 2, in order to cover a potentially large range of compounds in this context. See also recommended revisions to Annex A.*

#### 4. Environmentally sound storage

1. Each Party shall manage mercury ~~and the mercury compounds listed in Annex B~~ in a manner consistent with the guidance on environmentally sound storage adopted, updated or revised by the Conference of the Parties pursuant to this article.
2. The Conference of the Parties shall at its first meeting adopt guidance on the environmentally sound storage of mercury ~~and the mercury compounds listed in Annex B~~. The ultimate objective of the guidance shall be that all mercury from primary mercury mining or the supply sources listed in Annex A shall be stored in an environmentally sound manner. In considering the guidance, the Conference of the Parties shall take into account the factors listed in ~~Part II of~~ Annex B.
3. To achieve the objectives of this article, the Conference of the Parties shall periodically review the effectiveness of the guidance adopted under paragraph 2 and shall update or revise it as it may deem necessary.
4. Parties may cooperate with one another and with relevant intergovernmental organizations and other entities, as appropriate, to develop and maintain global, regional and national capacity for the long-term environmentally sound storage of mercury ~~and mercury compounds~~.

*Basis for Recommended ZMWG Revisions: The proposed changes indicate the storage requirement attaches to the elemental mercury derived from the compounds, and not to the compounds themselves.*

#### 5. International trade with Parties in mercury or mercury compounds

1. Each Party shall allow the import of mercury or the mercury compounds listed in Annex B bis only:
  - (a) For the purpose of environmentally sound storage of mercury as set out in Article 4; or
  - (b) For a use allowed to the Party under this Convention under a domestic approval mechanism which prevents diversion of the mercury for other uses.
2. Each Party shall allow the export of mercury or mercury compounds listed in Annex B bis only after the Party has adopted a domestic approval mechanism for such exports, and:
  - (a) Provided an export notification to the importing Party; and
  - (b) Received the written consent of the importing Party, including a certification from the importing Party that the shipment of mercury or mercury compounds will be only:
    - (i) For the purpose of environmentally sound storage of mercury as set out in Article 4; or
    - (ii) For a use allowed to the importing Party under the Convention.

3. For the purposes of this article, and paragraphs 1 and 2 notwithstanding, no Party may allow the export or import of mercury or mercury compounds listed in Annex B bis for the use of mercury or mercury compounds in artisanal and small-scale gold mining ~~shall not be considered a use allowed to any Party under this Convention.~~

4. For the purposes of this article, and paragraphs 1 and 2 notwithstanding, no Party may allow the export or import of mercury or mercury compounds listed in Annex B bis for use in dental amalgam, except as the product dental amalgam in accordance with Article 7.

*Basis for Recommended ZMWG Revisions: Revisions to Paragraphs 1 and 2 would explicitly require a domestic approval framework for the authorization of trade of mercury and the mercury compounds listed in Annex B bis. The need for such a framework is implied under the elements paper since trade could not occur without meeting specified pre-conditions. The suggested language makes this requirement explicit to facilitate Article 5 compliance. Other changes reflect the movement of the list of mercury compounds subject to trade restrictions to new Annex B bis, since the original Annex B should apply to elemental mercury only. The revisions to Paragraph 3 clarify that the international trade of mercury to support ASGM is prohibited, not the use of mercury in ASGM.*

*New Paragraph 4 would require that international trade for dental uses of mercury must be in the form of dental amalgam, and not as elemental mercury or other mercury compounds. This requirement would help prevent the diversion of mercury to ASGM or uses not allowed under the Convention, and protect dental workers and patients by avoiding onsite preparation of dental amalgam under inadequately controlled circumstances. Imports of elemental mercury destined for ASGM are often falsely justified as dental mercury.*

## 6. International trade with non-Parties in mercury or mercury compounds

(a) Each Party shall not allow ~~the~~ export of mercury or mercury compounds listed in Annex B bis to any State not Party to this Convention ~~only for the purpose of environmentally sound storage as set out in paragraph 1 of Article 4;~~ and (b) Each Party shall not allow ~~the~~ import of mercury or mercury compounds listed in Annex B bis from a State not Party to this Convention, except only for the purpose of environmentally sound storage of mercury as set out in paragraph 1 of Article 4.

*Basis for Recommended ZMWG Revisions: Exports of mercury to non-Parties should not be allowed under any circumstances, because there is no assurance the mercury will be properly managed afterward or the mercury will be kept from prohibited uses under the Convention. In addition, prohibiting exports to non-Parties may encourage governments to join the Convention.*

## Part III: Measures to reduce intentional use of mercury

## 7. Mercury-added products

1. Each Party shall not allow:

(a) The manufacture, distribution in commerce or sale of mercury-added products listed in Annex C, except in accordance with an allowable-use exemption listed in that annex for which the Party is registered or has otherwise obtained, as provided in Article 14;

(b) The export of mercury-added products listed in Annex C, except as provided in paragraph 2; or

(c) The import of mercury-added products listed in Annex C from States not Party to this Convention except in accordance with an allowable-use exemption for which the Party is registered or has otherwise obtained as provided in Article 14, ~~where the and the~~ State provides an export notification to, and receives the written consent of, the importing Party. Parties shall assist one another as may be necessary to achieve the objectives of this subparagraph.

(d) The import of products made from facilities with manufacturing processes listed in Annex D as may be identified by the Conference of the Parties, from States not Party to this Convention.

2. Each Party may allow the export of a mercury-added product listed in Annex C only:



- (a) For the purpose of environmentally sound disposal as set out in Article 12; or
- (b) After:
  - (i) Providing an export notification to the importing ~~State~~Party, which shall include a certification that the exporting Party is registered for or has otherwise obtained an allowable-use exemption applicable to the product, as provided in Article 14; and
  - (ii) Receiving the written consent of the importing ~~State~~Party and receiving a certification from the importing Party that the importing Party is registered or has otherwise obtained an allowable-use exemption as provided in Article 14.

~~33. —~~ Each Party shall not allow the production or export, sale or distribution in commerce of any ~~variety, type or~~ type or category of mercury-added product that was not produced, ~~sold or distributed in commerce~~ in the territory of the Party at the date of entry into force of this Convention for ~~it~~ such Party, except where the ~~product is intended to replace an existing mercury added product that contains more mercury per unit than does the~~ new product type or category has received an allowable use exemption under Paragraph 7 of Article 14. The Conference of the Parties may request information on new products allowed to be produced as needed to monitor the implementation and effectiveness of this paragraph.

4. Each Party shall not allow the export of equipment for producing mercury-added products listed in Annex C, or subsidies, aid credits, guarantees, or insurance programs for equipment to produce mercury-added products listed in Annex C, to any State not Party to this Convention, except in the case of equipment identified as a Best Available Technique under this Convention.

5. Beginning five years after the date of entry into force of this Convention, and at a minimum every five years thereafter, the Conference of the Parties shall evaluate whether additional products are appropriate for inclusion in Annex C.

6. Each Party shall promote the manufacture and sale of safe non-mercury alternatives to the mercury-added products listed in Annex C.

*Basis for Recommended ZMWG Revisions: The proposed ZMWG revisions build off the approach in the elements paper so that INC delegates can readily identify the changes necessary to Article 7 and Annex C if the positive list approach is pursued by the INC. ZMWG supports the negative list approach, recognizing its advantages in discouraging new uses and shifting the burden of proof to mercury users. However, we can support a positive list approach, but only if the list is expanded to include additional products where non-mercury alternatives are available as identified in Annex C, and a streamlined process for reviewing and adding products to the Annex is established as discussed in Article 28.*

*The recommended revision to Paragraph 1(a) is the first of a series of technical changes clarifying that Article 14 contains two categories of exemptions. The first is a registration process whereby the exemption is granted once the registration conditions are complied with. The second category anticipates a review and approval process under procedures to be developed by the COP, therefore the second category exemption must be “obtained” rather than merely “registered”. This is a crucial distinction which should be maintained throughout the treaty text.*

*The remaining recommended changes to Paragraph 1 concern under what circumstances trade of mercury products with non-Parties should be authorized. The changes are necessary to encourage governments to become Parties to the Convention and ensure appropriate controls over mercury products. The proposed revision to Paragraph 1(c) would require a Party to obtain an allowable use exemption in order to import otherwise restricted products from non-Parties. Without this addition, the import of restricted products from non-Parties could be easier and thus perversely preferred over trade with Parties. Moreover, the allowable use exemption process anticipates a review of non-mercury alternatives, and where international trade is involved, it is the importing party’s local circumstances which are most relevant for the alternatives analysis.*

*New Paragraph 1(d) would prohibit Parties from importing products made using mercury processes prohibited under the treaty, such as PVC or chlorine, where the COP could identify the products and factories using the prohibited mercury processes. Such information could be found by the COP in trade journals and other industry sources, where facilities using mercury-based processes are often identified. Non-parties should not be allowed to benefit economically from the use of processes Parties to the Convention can no longer utilize.*

One set of recommended changes to Paragraph 2 would not allow exports of restricted mercury products to non-Parties. This restriction is needed both to encourage governments to become Parties, and to ensure restricted mercury products are only used in accordance with the Convention's exemption procedures, and adequately handled at the end of their useful life. Additional changes to Paragraph 2 clarify that allowable use exemptions are required for both the exporting and importing Parties, because as noted above, it is the importing party's local circumstances which are most relevant for the alternatives analysis. The exporting party may elect to file the necessary exemption paperwork on behalf of itself and the importing party.

The recommended changes to Paragraph 3 would regulate new products by requiring them to undergo an allowable use exemption review and approval process before being authorized under the Convention. By affording this opportunity for COP review, the necessary technical evaluation and input from the Parties can be provided. We believe this approach provides greater protection and transparency than the vague standard and the unilateral authority provided to Parties under the text UNEP proposed.

New Paragraph 4 would prevent the export or financial encouragement to non-Parties of factory equipment used to manufacture products restricted under the Convention. This provision is needed, to ensure that non-Parties cannot undermine the global demand reduction objective of Article 7.

Paragraph 5 is added to require a periodic review of Annex C to determine if the treaty contains significant gaps in coverage of mercury products, or if new technologies or information should result in control measures for previously unaddressed products.

See also the recommended changes to Annex C, the list of mercury-added products subject to Convention control measures, and Article 28 where a streamlined process for adding products to Annex C is proposed.

## 8. Manufacturing processes in which mercury is used

1. Each Party shall not allow the use of mercury or mercury compounds in the manufacturing processes listed in Annex D except in accordance with an allowable-use exemption listed in that annex for which the Party is registered or has otherwise obtained, as provided in Article 14.

2. Each Party shall not allow the introduction of manufacturing processes or facilities in which mercury or mercury compounds are intentionally used that were not used or present in the territory of the Party as at the date of entry into force of this Convention for it, except in accordance with an allowable use exemption obtained under paragraph 7 of Article 14. ~~in the case of any new process or facility that achieves reductions in mercury use by replacing an existing process or facility.~~

3. Each Party with one or more facilities that use mercury or mercury compounds in the manufacturing processes listed in Annex D shall prepare and implement a national action plan to reduce and eliminate its use of mercury in such processes. The national action plan shall, no later than one year after the entry into force of this Convention for the Party, be submitted to the Secretariat for distribution to the Parties. Each national action plan shall, at a minimum, include the elements listed in Part II of Annex D.

4. Each Party shall not allow the export of equipment intended for use in the manufacturing processes listed in Annex D, or subsidies, aid credits, guarantees, or insurance programs for equipment intended for use in the manufacturing processes listed in Annex D, to any State not Party to this Convention, except for the purpose of achieving emissions reduction at existing facilities as part of a transitional program to non-mercury manufacturing processes.

5. Beginning five years after the date of entry into force of this Convention, and at a minimum every five years thereafter, the Conference of the Parties shall evaluate whether additional processes are appropriate for inclusion in Annex D.

Basis for Recommended ZMWG Revisions: The revision to Paragraph 1 clarifies there are two categories of exemptions available under Article 14; the second category requiring review and approval. The revision to Paragraph 2 is similar to the changes above for new mercury products, whereby an exemption review and approval process is required before new mercury



manufacturing processes are authorized. The revision to Paragraph 3 requires both the development and implementation of the required action plan.

New Paragraph 4 would prevent the export or financial encouragement to non-Parties of factory equipment used in manufacture processes restricted under the Convention. This provision is needed to discourage non-Parties from undermining the global demand reduction objective of Article 8, but would still allow the export of pollution control equipment to be installed during the transition to non-mercury manufacturing processes.

Paragraph 5 is added to require a periodic review of Annex D to determine if the treaty contains significant gaps in coverage of mercury processes, or if new technologies or information should result in control measures for previously unaddressed processes. See also revisions to Annex D.

## 9. Artisanal and small-scale gold mining

1. Each Party that has artisanal and small-scale gold mining within its territory at the date of entry into force of this Convention for it shall reduce and, where ~~possible~~feasible, eliminate the use of mercury and mercury compounds in such mining, and reduce releases of mercury and mercury compounds to the environment. Such Parties shall develop and implement national action plans, which include national objectives or reduction targets; and additional measures which are intended to ~~shall include, at a minimum, the elements listed in Annex G; consider taking measures, among others:~~

(a) ~~— To prevent, in accordance with Article 5, the import of mercury for use in artisanal and small-scale gold mining and the diversion of mercury for use in that sector;~~

(b) ~~— To prevent, in accordance with Articles 12 and 13, the recovery, recycling or reclamation of mercury wastes, including wastes from sites contaminated with mercury, for use in artisanal and small-scale gold mining;~~

(c) ~~— To develop national or regional action plans, which may include national objectives or reduction targets; and~~

(d) ~~— To prohibit specific practices such as whole-ore amalgamation.~~

2. Parties may cooperate with one another and with relevant intergovernmental organizations and other entities, as appropriate, to achieve the objectives of this article. Such cooperation may include:

(a) Prevention, in accordance with Article 5, of the import and export of mercury for use in artisanal and small-scale gold mining and the diversion of mercury or mercury compounds for use in that sector;

(b) Education, outreach and capacity-building initiatives;

(c) Promotion of research into sustainable, non-mercury alternative practices; and

(d) Provision of technical and financial assistance.

3. ~~For the purposes of Article 5, the use of mercury or mercury compounds in artisanal and small-scale gold mining shall not be considered a use allowed to any Party under this Convention.~~

*Basis for Recommended ZMWG Revisions:* The revisions to Paragraph 1 would require Parties to take steps toward reducing uses and releases in ASGM. While flexibility is intended regarding the particular strategies for achieving reductions, the need for action is not. Accordingly, Parties with ASGM must be required to prepare and implement action plans which specify how use and release reductions will be achieved. The inclusion of mercury compounds reflects the scope of releases of concern. Some of the text in this Paragraph has been moved to proposed new Annex G, where all of the elements in the ASGM action plans are specified.

The revision to Paragraph 2 would promote further research on non-mercury alternatives for this sector. The deletion of Paragraph 3 is non-substantive, since Paragraph 3 duplicates the trade provision already in Article 5, and may contribute to confusion within Article 9.

See also proposed new Annex G.

## Part IV: Measures to reduce releases of mercury and mercury compounds to air, water and land

### 10. Atmospheric emissions

1. Each Party shall reduce and, where feasible, eliminate atmospheric emissions of mercury from the source categories listed in Annex E, subject to the provisions of that annex.
2. For new emissions sources among the source categories listed in Annex E, each Party shall:
  - (a) Require the use of best available techniques for such new sources as soon as practicable, but no later than ~~three~~ years after the entry into force of the Convention for it; and
  - (b) Promote the use of best environmental practices.
3. For existing emissions sources among the source categories listed in Annex E, each Party shall:
  - (a) Require ~~promote~~ the use of best available techniques for such existing sources as soon as practicable, but in no case later than five years after the Convention is in force for it; and
  - (b) Promote the use of best environmental practices.
4. The Conference of the Parties shall at its first meeting adopt guidelines on best available techniques (including monitoring and reporting techniques), and best environmental practices to reduce atmospheric emissions of mercury from the source categories listed in Annex E. The guidelines shall distinguish between new and existing facilities, where appropriate, by taking into account pollution control equipment already installed at existing sources and providing greater flexibility in how to achieve significant emissions reduction. Parties shall take action in conformity with these guidelines ~~into account~~ when implementing the provisions of this article.
5. Each Party with significant aggregate mercury emissions from the source categories listed in Annex E shall, within the later of ~~X~~ two years of entry into force of this convention for that Party or ~~X~~two years of becoming a source of significant aggregate mercury emissions from such sources:
  - (a) Adopt a national goal for reducing and, where feasible, eliminating atmospheric mercury emissions from the source categories listed in Annex E, taking into account the obligations under Paragraphs 2 and 3 of this Article;
  - (b) Submit its national goal to the Secretariat for distribution to the Parties and consideration by the Conference of the Parties at its next meeting; and
  - (c) Develop and implement, in accordance with Part II of Annex E, a national action plan to reduce and, where feasible, eliminate its atmospheric mercury emissions from the source categories listed in Part I of Annex E.
6. For the purposes of this article and Annex E,
  - (a) “significant aggregate mercury emissions” means the annual atmospheric mercury emissions of a Party from the source categories listed in Annex E that, in total, equal X or more tons.
  - (b) “Atmospheric mercury emissions” includes emissions to the atmosphere of gas-phase oxidized mercury (Hg<sup>2+</sup>), gas-phase elemental mercury (Hg<sup>0</sup>), and solid-phase particulate-bound mercury (Hg<sup>p</sup>).
7. Each Party shall include in its reports submitted pursuant to Article 22 information sufficient to demonstrate its compliance with the provisions of this article. The scope and format of such information shall be decided by the Conference of the Parties at its first meeting, and shall promote harmonization and comparisons of relevant data.

***Basis for Recommended ZMWG Revisions:** The revisions to Article 10 bring existing facilities into the controlled source regime, but under a framework which provides more time and more flexibility to achieve compliance. It is anticipated that the BAT/BEP guidance for existing facilities would allow for a menu of control options to control mercury emissions that could be applied to the various existing fuel types and plant configurations, and thus take advantage of effective multi-pollution control strategies.*

*It is further anticipated that the BAT guidelines would provide for both a technology-based approach and an emission limit, so that maximum flexibility is provided as to how compliance*

*could be achieved, but there is accountability as to the level of performance expected from the technologies deployed.*

*Other revisions make clear that monitoring and reporting techniques will be considered part of BAT, recognizing that the use of Continuous Emissions Monitoring equipment (CEMs) now provides strong capabilities for obtaining and accessing accurate, real-time data on mercury emissions.*

*Paragraph 5 is revised to ensure the required action plans are developed and implemented. Paragraph 6 as revised provides a tailored definition of mercury emissions to ensure all the relevant forms of mercury are addressed under the air control measures. Paragraph 7 as revised encourages the COP to design the reporting system under Article 10 in a way which fosters data harmonization and comparison, to facilitate treaty monitoring and effectiveness.*

*See also associated changes to Annex E.*

## 11. Releases to water and land

1. Each Party shall reduce and, where feasible, eliminate releases of mercury [and mercury compounds](#) to water and land from the source categories listed in Annex F, subject to the provisions of that annex.
2. The Conference of the Parties shall develop and adopt guidelines on best available techniques and best environmental practices to reduce releases of mercury [and mercury compounds](#) to water and land from the source categories listed in Annex F. The guidelines shall complement and avoid duplication with the provisions of Articles 3, 8, 9, 12 and 13 and any guidelines developed thereunder that are relevant to the achievement of reductions of releases of mercury [and mercury compounds](#) to water and land. Parties shall take [action in conformity with](#) these guidelines ~~into account~~ when implementing the provisions of this article.
3. Parties may cooperate in developing and implementing strategies and methodologies for achieving the objectives of this article, including through the provision of financial and technical assistance.
4. Each Party shall include in its reports submitted pursuant to Article 22 information sufficient to demonstrate its compliance with the provisions of this article. The scope and format of such information shall be decided by the Conference of the Parties at its first meeting.

*Basis for Recommended ZMWG Revisions: The proposed revisions clarify that the Convention is intended to address releases of a broadly defined scope of mercury compounds, not just mercury in its elemental form. The revision in Paragraph 2 seeks more consistency in how Parties use and thereby achieve the release reductions sought from developing the BAT/BEP guidelines. See also proposed revisions to Annex F.*

## 12. Mercury wastes

1. Each Party shall ensure that mercury wastes, including [mercury wastes from the source categories listed in Annexes D-F, and](#) mercury-added products upon becoming wastes, are:
  - (a) Handled, collected, transported and disposed of in an environmentally sound manner [within its territories, except as provided in paragraph \(c\)](#);
  - (b) Not subjected to disposal operations that [either](#) may lead to recovery, recycling, reclamation, direct reuse or alternative uses that are not permitted under this convention, or [which are not permitted under](#) relevant international rules, standards and guidelines; [and](#)
  - (c) Not transported across international boundaries except for ~~the purpose of transportation associated with providing~~ environmentally sound disposal [in developed-nation Parties, or in the case of developing-nation Parties or Parties with economies in transition acting under a cooperative arrangement between such Parties, and such disposal is](#) in conformity with the provisions of this article and relevant international rules, standards and guidelines. Such transport may occur only after the exporting Party has received the written consent of the importing [Party, and has determined the importing Party possesses environmentally sound disposal facilities.](#) ~~State, and~~
  - (d) ~~Disposed of in an environmentally sound manner when their mercury content is low, taking into account international rules, standards and guidelines, including those that may be developed pursuant to paragraph 2, and relevant global and regional regimes governing the management of hazardous wastes.~~

2. The Conference of the Parties shall ~~cooperate~~<sup>consult</sup> with the appropriate bodies of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. The aim of such ~~cooperation~~<sup>consultation</sup> shall be, among other things:

(a) To assist the Conference of the Parties in determin~~ing~~<sup>e</sup> the methods that constitute environmentally sound management and environmentally sound disposal of mercury wastes and mercury-added products upon becoming waste, taking into account:

- (i) The objective set out in Article 4 that all elemental mercury from primary mercury mining and the supply sources listed in Annex A shall be stored in an environmentally sound manner; and
- (ii) Relevant provisions of the Basel Convention and guidelines developed thereunder;  
~~and~~

~~(b) — To establish, as appropriate, the concentration levels of mercury that will define low mercury content as referred to in paragraph 1 (d).~~

*Basis for Recommended ZMWG Revisions: The initial changes to Paragraph 1 are intended to clarify the scope of mercury wastes falling within Article 12. The revisions to Paragraph 1(a) would reinforce the established principle that generator nations should manage wastes within their own borders when they are able to do so. The revisions to Paragraph 1(b) would clarify that disposal requirements under this and other Conventions must be complied with, including disposal requirements in other Conventions unrelated to recycling and recovery.*

*The changes to Paragraph 1(c) would prevent the dumping of mercury wastes from the developed to the developing world, where environmentally sound waste disposal presents serious challenges. Such limits would also reinforce global efforts to divert mercury from ASGM use, insofar as mercury recovery from wastes represents a potential source of mercury supply for ASGM purposes.*

*Deletion of Paragraph 1(d) and 2(b) is recommended because for many mercury wastes, such as used products, waste management techniques will be defined by the type of waste, not its mercury content. In fact, it may be an ineffective use of resources to encourage mercury sampling of such wastes as a basis for determining how they should be managed. While we do not preclude the use of mercury concentrations as a means of differentiating waste management practices for some mercury wastes, this issue represents only one aspect of determining “environmentally sound disposal”, and perhaps a less important aspect than how best to minimize mercury releases from the millions of mercury products already in commerce.*

*The other revisions to Paragraph 2 would clarify that the Conference of the Parties retains its role as the principal policy setting body for mercury waste management under the treaty.*

### 13. Contaminated sites

1. Each Party shall endeavour to:

(a) remediate sites contaminated by mercury and mercury compounds in an environmentally sound manner, taking into consideration guidance developed under paragraph 3;

(b) investigate the health effects of persons exposed to mercury and mercury compounds released from contaminated sites;

(c) assist exposed populations by, inter alia, providing information on the risks posed to exposed persons affected by the contaminated sites; and

(d) ensure that all victims of mercury pollution receive appropriate compensation, taking into consideration the principle of polluter pays.

2. Parties may cooperate in developing and implementing strategies and methodologies for identifying, assessing, prioritizing and remediating contaminated sites, taking into account impacts on vulnerable populations, including through the provision of financial and technical assistance.

3. The Conference of the Parties shall develop guidance on best available techniques and best environmental practices for:

- (a) Identifying and assessing contaminated sites;

- (b) Preventing mercury contamination from spreading; ~~and~~
- (c) Managing and, where feasible, remediating and rehabilitating contaminated sites;
- (d) Minimizing human exposure to vulnerable populations before, during, and after remediation; and
- (e) Conducting health investigations of exposed populations.

4. The Conference of the Parties shall develop guidance on allocating financial responsibility for addressing contaminated sites, taking into account the principle of polluter pays.

*Basis for Recommended ZMWG Revisions: The experiences at Minamata and many other contaminated sites demonstrate that addressing the health-related needs of exposed populations at such sites is a critical component of remediation activity. This means providing information to communities about the nature of their exposures and the risks they face, and conducting health investigations as needed to determine the affects of such exposure. It also means facilitating appropriate victim compensation for the adverse effects caused by mercury exposures by, at a minimum, enabling such compensation under a polluter pays framework. Accordingly, Paragraph 1 is amended to include these basic elements into remediation action generally.*

*One set of Paragraph 2 and 3 changes would ensure vulnerable populations are considered and protected as remediation sites are assessed and addressed. Paragraph 3 is additionally revised to ensure the BAT/BEP guidance includes health investigations and measures to reduce human exposures throughout the remediation process, presumably including appropriate uses for the site. And Paragraph 4 is added to provide Parties with importance guidance on how to construct appropriate liability schemes based on the polluter pays principle.*

## Part V: Transitional measures

### 14. Allowable-use exemptions

1. Any State or regional economic integration organization may register for one or more allowable-use exemptions listed in Annex C or Annex D by notifying the Secretariat in writing of the particular use sought and the estimated quantity of mercury used in the product or process to be registered:
  - (a) No later than the date upon which this Convention enters into force for it; or
  - (b) In the case of any mercury-added product that is added by amendment to Annex C or any manufacturing process in which mercury is used that is added by amendment to Annex D, no later than the date upon which the applicable amendment enters into force for the Party.
2. Parties that have allowable-use exemptions listed in Annex C or Annex D shall be identified in an allowable-use register. The register shall be maintained by the Secretariat and shall be available to the public.
3. The register shall include:
  - (a) A list of the allowable-use exemptions set forth in Annex C and Annex D;
  - (b) A list of the Parties that have registered allowable-use exemptions listed in Annex C or Annex D; and
  - (c) A list of the expiry dates for all registered allowable-use exemptions for all Parties.
4. Unless an earlier date is indicated in the register by a Party, or an extension is granted pursuant to paragraph 7, all allowable-use exemptions shall expire ~~two~~ two years after the date of entry into force of this ~~C~~ Convention with regard to a particular use.
5. The Conference of the Parties shall decide at its first meeting upon a process for reviewing allowable-use exemptions, including consultation with experts and other stakeholders such as non-government organizations.
6. Prior to the review of an allowable-use exemption, a Party wishing to extend the exemption shall submit a report to the Secretariat justifying its continuing need for it. The report shall be circulated by the Secretariat to all Parties. The review of an allowable-use exemption shall be carried out on the basis of all available information, including the availability of alternative products and processes that are mercury-free



or that involve the consumption of less mercury than does the exempt use in question. Thereupon, the Conference of the Parties may make such recommendations to the Party concerned as it may deem appropriate.

7. The Conference of the Parties may, upon request from the Party concerned, decide to issue or extend an allowable-use exemption for a period of up to four~~X~~ years. In making its decision, the Conference of the Parties shall take due account of the special circumstances of developing-country Parties and Parties with economies in transition, activities undertaken and planned to eliminate such use as soon as feasible, and activities planned or underway to provide environmentally sound storage of mercury and disposal of mercury wastes. Unless it decides otherwise, the Conference of the Parties shall take decisions pursuant to this paragraph at intervals of four~~X~~ years after the entry into force of this Convention with regard to a particular allowable use.

8. A Party may at any time withdraw an allowable-use exemption upon written notification to the Secretariat. The withdrawal of an allowable-use exemption shall take effect on the date specified in the notification.

9. No exemption requests or new registrations for a particular use may be made upon determination by the Conference of the Parties that such registrations or requests are no longer needed, or ~~When there are no longer any Parties registered for or possessing for a particular type of an~~ allowable-use exemption for this particular use, whichever comes first, no new registrations may be made with regard to it.

10. Each allowable-use exemption for chlor-alkali production shall expire no later than December 31, 2020.

11. Each allowable-use exemption for mercury-added paints, pesticides, soaps and cosmetics, and topical antiseptics shall expire no later than December 31, 2020.

***Basis for Recommended ZMWG Revisions:** Revisions to Paragraph 1 specify that registrations should contain some specificity as to the particular uses and quantities of mercury involved, thereby facilitating the monitoring of Convention implementation. Paragraph 4 revisions would limit the duration of the "automatic" registrations to two years, ample time to either complete the mercury free transition or prepare the more technical application for an extended exemption.*

*The Paragraph 7 revisions provide for four year renewable allowable use extensions following the initial registration. The four year period reflects an appropriate balancing of the resource commitments associated with the exemption review process with the objective of minimizing exemptions where non-mercury alternatives become available, and takes into account that the COP may meet once every two years. Paragraph 7 is also revised to enable the COP to take into account whether mercury and mercury wastes will be appropriately managed when evaluating allowable use exemption requests. Other revisions to Paragraph 7 implement the exemption process for new products and processes under changes to Articles 7 and 8 discussed above.*

*Paragraph 9 revisions establish a generally applicable sunset date for exemption availability where none are outstanding or as the COP directs, whichever comes first. The sunset date is needed to discourage backsliding and efficiently utilize treaty resources. Paragraph 10 would establish a specific sunset date for chlor-alkali production, thereby ensuring the phase out of this mercury use by 2020. Paragraph 11 would take a similar approach for a subset of products listed in Annex C, where non-mercury alternatives are already prevalent throughout the world and thus no valid allowable use beyond 2020 can be foreseen.*

## **Part VI: Financial resources and technical and implementation assistance**

### **15. Financial resources and mechanisms**

1. Each Party undertakes to provide, within its capabilities, financial support and incentives in respect of those national activities that are intended to achieve the objective of this Convention in accordance with its national plans, priorities and programmes.

2. The ability of developing countries and countries with economies in transition to implement some legal obligations effectively under this Convention will depend on the availability of capacity-building and technical and adequate financial assistance.

3. A mechanism for the provision of financial and technical cooperation to developing-country Parties and Parties with economies in transition to assist their compliance with the measures of this Convention is hereby defined. The mechanism shall operate under the authority and guidance of the Conference of the Parties, which shall decide on its overall policies. The financial support mechanism shall be designated and operated to facilitate compliance and discourage non-compliance with the obligations of this Convention.4. The mechanism shall include a Dedicated Fund. It may also include one or more other funds that and may be operated by one or more entities, including existing international entities, as shall be decided by the Conference of the Parties. The mechanism may also include other entities providing multilateral, regional and bilateral financial and technical assistance. Contributions from other sources, including the private sector, are encouraged.

5. The Conference of the Parties shall at its first meeting decide upon institutional arrangements for the Dedicated Fund and any other mechanism, including its governance structure, operational policies, guidelines that it will follow and administrative arrangements. The governance structure for the Dedicated Fund shall provide for representation of developing nations, and operational transparency. 6. Each Party shall include in its reports submitted pursuant to Article 22 information demonstrating how it has implemented the provisions of this article.

7. The Conference of the Parties shall review, not later than its fourth meeting and thereafter on a regular basis, the effectiveness of the mechanism based on agreed upon indicators, its ability to meet the changing needs of the developing-country Parties and Parties with economies in transition, the level of funding made available through the mechanism, and the effectiveness of the performance of any institutional entities entrusted to operate the mechanism, including the performance of such entities with respect to transparency and involving stakeholders in their activities. The Conference of the Parties shall, based upon such review, take appropriate action, if necessary, to improve the mechanism's effectiveness.

***Basis for Recommended ZMWG Revisions:** Unlike the revisions to other Articles, some of these recommendations are more conceptual in nature, recognizing that more detailed negotiations will be forthcoming regarding the financial assistance mechanism. The cornerstone of the conceptual revisions is the creation of a Dedicated Fund to ensure adequate resources are available to facilitate compliance, the resources are allocated consistent with COP priorities, and the resources are allocated by a transparent process that provides for diverse decision-making representation. In addition, the Dedicated Fund should be designed and implemented to encourage compliance and discourage non-compliance.*

*We interpret the term "within its capabilities" in Paragraph 1 as inclusive of resources and assets available in both the public and private sectors. Companies in the developing world are expected to assume financial responsibility for undertaking compliance related activities consistent with their financial ability, based upon the principle of polluter pays.*

*The revisions to Paragraph 7 would add two important elements to the financial mechanism effectiveness evaluation. First, the evaluation would be based on identified parameters developed by the COP to ensure the evaluation considers all relevant factors. Second, the portion of the evaluation regarding entities operating the mechanism would include how the entities perform with respect to involving stakeholders and the transparency of their activities, thereby ensuring these important objectives are included within the evaluation.*

## 16. Technical assistance

1. In response to requests, ~~D~~developed-country Parties and other Parties in a position to do so shall provide technical assistance to developing-country Parties and Parties with economies in transition to develop and strengthen their capacities to implement their obligations under this Convention. Parties may wish to cooperate, including at the regional and subregional levels, to provide such assistance in a timely and appropriate manner. Each Party shall include in its reports submitted pursuant to Article 22 information demonstrating how it has implemented the provisions of this article.

2. The Conference of the Parties shall provide further guidance on the implementation of this article.

***Basis for Recommended ZMWG Revisions:** The revision to Paragraph 1 is intended to clarify that the nature of the technology assistance provided should be based upon the local needs of the Party seeking assistance, as reflected in its request.*

## 17. Implementation committee

1. The Conference of the Parties shall at its first meeting establish an implementation committee to, [in an open and transparent manner](#), promote compliance with the provisions of this Convention. The Conference shall also at that meeting decide on the committee's terms of reference, which shall include the following elements:

- (a) The committee shall consist of X members nominated by Parties and elected by the Conference of the Parties on the basis of equitable geographical representation;
  - (b) The committee may decide to examine any questions of implementation of the Convention that come to its attention. It may consider such questions on the basis of:
    - (i) Written submissions from any Party;
    - (ii) National reports and reporting requirements under Article 22;
    - (iii) Requests from the Conference of the Parties; or
    - (iv) Any other relevant information that becomes available to the Committee [from experts or other sources](#);
  - (c) The Committee may make non-binding recommendations for consideration by the Parties; and
  - (d) The Committee shall make every effort to adopt its recommendations by consensus. If all efforts at consensus have been exhausted and no consensus is reached, such recommendations shall as a last resort be adopted by a X majority vote of the members present and voting.
2. The Conference of the Parties may, as it considers necessary for the implementation of this Convention, assign the implementation committee responsibilities that are additional to those mandated in this article.

*Basis for Recommended ZMWG Revisions: Additional direction is provided regarding the terms of reference for the Committee to ensure the Committee has the benefit of hearing from all interested parties as it discharges its responsibilities under the treaty.*

## Part VII: Awareness-raising, research and monitoring, and communication of information

### 18. Information exchange

- 1. Each Party shall facilitate the exchange of:
  - (a) Scientific, technical, economic and legal information concerning mercury and its compounds, including toxicological, ecotoxicological and safety information;
  - (b) Information on the reduction or elimination of the production, use, trade and release, including from unintentional sources, of mercury and mercury compounds; and
  - (c) Information on alternatives to mercury-added products, manufacturing processes in which mercury is used, and activities and processes that emit or release mercury, including information relating to the risks and economic and social benefits and costs of such alternatives.
- 2. Parties shall exchange the information referred to in paragraph 1 directly or through the Secretariat.
- 3. Each Party shall designate a national authority for the exchange of information under this Convention, including with regard to export notifications and consent of importing Parties under paragraph 2 of Article 5 and paragraph 2 (b) of Article 7.
- 4. The Secretariat shall facilitate the exchange of information relating to the implementation of this Convention, including information provided by Parties, intergovernmental organizations and non-governmental organizations.
- 5. For the purposes of this Convention, information on health and safety of humans and the environment shall not be regarded as confidential. Parties that exchange other information pursuant to this Convention shall protect any confidential information as mutually agreed.

## 19. Public information, awareness and education

Each Party shall:

- (a) Provide the public with access to up-to-date information on the health and environmental effects of mercury, ~~and~~ on alternatives to mercury, and on their activities to implement their obligations under the Convention; and
- (b) Promote and cooperate in education, training and public awareness related to mercury and encourage the widest possible participation in the implementation of the Convention, including that of non-governmental organizations and vulnerable populations; and
- (c) Provide the public information on products and processes using mercury domestically, and activities underway or planned to reduce or eliminate such mercury use.

*Basis for Recommended ZMWG Revisions: The recommended changes to Article 19 are intended to ensure the public is provided relevant domestic information regarding treaty activities and progress toward reducing or eliminating mercury use, and that Parties reach out to vulnerable populations so they understand the risks by mercury exposure and the Party's plans to reduce such risks.*

## 20. Research, development and monitoring

Parties shall cooperate to develop and improve:

- (a) Inventories of national, regional, and global use, consumption and ~~environmental~~anthropogenic releases of mercury and mercury compounds;
- (b) Monitoring of mercury levels in geographically representative vulnerable populations and environmental media, including biotic media such as fish and marine mammals;
- (c) Assessments of the impact of mercury and mercury compounds on human health and the environment, in addition to social, economic and cultural impacts, particularly in respect of vulnerable communities;
- (d) Information on the environmental cycle, transport, transformation and fate of mercury;
- (e) Information on commerce and trade in mercury and mercury-added products; and
- (f) The technical and economic availability of mercury-free products and processes, and best available techniques and best environmental practices to reduce and monitor releases of mercury and mercury compounds.

*Basis for Recommended ZMWG Revisions: The revisions to Article 20 are intended to facilitate data gathering related to Convention implementation and effectiveness, including data regarding trends in mercury uses and releases, and mercury contaminant levels in vulnerable populations and aquatic food sources throughout the world. The addition of "mercury compounds" clarifies the scope of the mercury releases of concern, and the additional text in Paragraph (f) would foster improvements in emissions control and monitoring, as well as non-mercury products and processes.*

## 21. Implementation plans

1. Each Party may:

- (a) Decide to develop and execute a plan for the implementation of its obligations under this Convention;
- (b) Declare its decision under subparagraph (a) by submitting a notification to the Secretariat not later than the date of entry into force of this Convention for it;
- (c) Transmit its implementation plan to the Conference of the Parties within one year of the date on which this Convention enters into force for it;

(d) Review and update its implementation plan on a periodic basis and in a manner to be specified by a decision of the Conference of the Parties; and

(e) Include its reviews under subparagraph (d) in its reports submitted pursuant to Article 22<sup>4</sup>.

2. Parties shall, ~~where appropriate,~~ consult and promote the involvement of their national stakeholders to facilitate the development, implementation, review and updating of their implementation plans, and may cooperate directly or through global, regional and subregional organizations.

*Basis for Recommended ZMWG Revisions: The revisions make it clear that stakeholder involvement in plan development and implementation is expected and encouraged.*

## 22. Reporting

1. Each Party shall report to the Conference of the Parties on the measures that it has taken to implement the provisions of this Convention and on the effectiveness of such measures in meeting the objectives of the Convention, beginning two years after the Convention comes into force.

2. Each Party shall provide to the Secretariat, where applicable:

(a) Mercury supply data specified in Article 3;

(b) Statistical data on its total quantities of mercury and mercury compounds imported or exported under Articles 5 and 6, including the States from which it has imported mercury and mercury compounds and the States to which it has exported mercury and mercury compounds;

(c) Statistical data on its manufacture, distribution in commerce and sale of mercury-added products listed in Annex C, in addition to its export of such products, and information on any new products allowed to be produced under Article 7, paragraph 3 of this Convention as may be required by the Conference of the Parties;

(d) Information on its progress in eliminating manufacturing processes under Article 8, information on its progress in reducing, and where feasible, eliminating the use of mercury in artisanal and small scale gold mining under Article 9, and information on its progress in reducing and, where feasible, eliminating atmospheric emissions of mercury as required under Article 10, and any additional information on the progress to reduce mercury and mercury compound releases to land and water under Article 11;

(e) Statistical data and other information on progress in achieving the environmentally sound storage of mercury pursuant to Article 4 and the environmentally sound disposal of mercury wastes under Article 12, including but not limited to mercury or mercury wastes transported from the Party to other Parties;

(f) Information on its provision of financial and technical cooperation as required under Articles 15 and 16;

(g) Reviews of the progress of its implementation plan under Article 21; and

(h) Any other information, data or reports required by the provisions of this Convention.

3. Such reporting shall be at periodic intervals and in a format to be decided by the Conference of the Parties at its first meeting, ~~taking into account the desirability of coordinating reporting formats and processes with those of other relevant chemicals and wastes conventions~~ except that the data required by paragraphs 2(a)-(c) shall be provided annually, and the data required by paragraph 2(d) every two years, until such time as the Conference of the Parties determines such frequent reporting is no longer required to monitor the implementation or effectiveness of this Convention.

4. The Conference of the Parties shall promote consolidation and coordination of reporting required under this Convention, including consolidation and coordination with other relevant chemical and waste conventions and coordination with the meeting cycles of the Conference of the Parties.

*Basis for Recommended ZMWG Revisions: In general, the revisions to Article 22 are intended to improve the information gathering process to better monitor Convention progress and effectiveness. The suggested improvements include a start date for reporting in Paragraph 1. In Paragraph 3, we propose annual reporting on mercury products and trade, and biennial reporting*



*on air emissions, so that the information to the Parties is current and can be responded to as warranted.*

*In Paragraph 2, additional authority is provided to the COP to request data on new products as needed, to ensure new mercury-added products are only authorized under extraordinary circumstances under Paragraph 3 of Article 7. Other clarifying text is added to ensure reporting on all relevant products and processes are included in this provision. Finally, reporting of relevant information related to the implementation of Articles 4, 8, 9, 11, and 12 is provided to complement similar provisions already in the elements paper for other Articles.*

## 23. Effectiveness evaluation

1. Beginning four years after the date of entry into force of this Convention, and periodically thereafter at intervals to be decided by the Conference of the Parties, the Conference shall evaluate the effectiveness of this Convention.
2. The evaluation shall be conducted on the basis of available scientific, environmental, technical and economic information, including:
  - (a) Reports and other monitoring information provided to [or obtained by](#) the Conference of the Parties, [including bio-monitoring trends \(i.e., trends in mercury levels observed in biotic media and vulnerable populations\)](#);
  - (b) National reports submitted pursuant to Article 22; and
  - (c) Implementation information and recommendations provided pursuant to Article 17.

*Basis for Recommended ZMWG Revisions: Paragraph 2(a) is revised to clarify that the COP may actively obtain the necessary data, through the Secretariat or otherwise. It is also specified that the effectiveness evaluation include collecting and assessing mercury trends in humans, particularly vulnerable populations, and in the environment such as in fish and marine mammals (see Article 20). Since we are engaged in this Convention process to protect humans from the risks of human exposure, and to provide safe aquatic food supplies for everyone to eat, the Convention effectiveness evaluation should incorporate these considerations, notwithstanding the time it may take to measure significant changes in these areas.*

## Part VIII: Institutional arrangements

## 24. Conference of the Parties

1. A conference of the Parties is hereby established.
2. The first meeting of the Conference of the Parties shall be convened by the Executive Director of the United Nations Environment Programme no later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be decided by the Conference.
3. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party provided that the request is supported by at least one third of the Parties.
4. The Conference of the Parties shall by consensus agree upon and adopt at its first meeting rules of procedure and financial rules for itself and any subsidiary bodies, in addition to financial provisions governing the functioning of the Secretariat.
5. The Conference of the Parties shall keep under continuous review and evaluation the implementation of this Convention. It shall perform the functions assigned to it by the Convention and, to that end, shall:
  - (a) Establish such subsidiary bodies as it considers necessary for the implementation of the Convention;
  - (b) Cooperate, where appropriate, with competent international organizations and intergovernmental and non-governmental bodies;

- (c) Regularly review all information made available to it and to the Secretariat pursuant to Article 22;
- (d) Consider any recommendations submitted to it by the Implementation Committee; and
- (e) Consider and undertake any additional action that may be required for the achievement of the objectives of the Convention.

6. The United Nations, its specialized agencies and the International Atomic Energy Agency, in addition to any State not Party to this Convention, may be represented at meetings of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, that is qualified in matters covered by the Convention and has informed the Secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

## **25. Secretariat**

1. A secretariat is hereby established.
2. The functions of the Secretariat shall be:
  - (a) To make arrangements for meetings of the Conference of the Parties and its subsidiary bodies and to provide them with services as required;
  - (b) To facilitate assistance to Parties, particularly developing-country Parties and Parties with economies in transition, on request, in the implementation of this Convention;
  - (c) To coordinate, as appropriate, with the secretariats of relevant international bodies, particularly other chemicals and wastes conventions;
  - (d) To assist Parties in the exchange of information related to the implementation of this Convention;
  - (e) To prepare and make available to the Parties periodic reports based on information received pursuant to Articles 17 and 22 and other available information;
  - (f) To enter, under the overall guidance of the Conference of the Parties, into such administrative and contractual arrangements as may be required for the effective discharge of its functions; and
  - (g) To perform the other secretariat functions specified in this Convention and such other functions as may be determined by the Conference of the Parties.
3. The secretariat functions for this Convention shall be performed by the Executive Director of the United Nations Environment Programme, unless the Conference of the Parties decides, by a X majority of the Parties present and voting, to entrust the secretariat functions to one or more other international organizations.
4. The Conference of the Parties, in consultation with appropriate international bodies, may provide for enhanced cooperation and coordination between the Secretariat and the secretariats of other chemicals and wastes conventions.

## **Part IX: Settlement of disputes**

### **26. Settlement of disputes**

1. Parties shall seek a settlement of any dispute between them concerning the interpretation or application of this Convention through negotiation or other peaceful means of their own choice.
2. When ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a Party that is not a regional economic integration organization may declare in a written instrument submitted to the Depositary that, with respect to any dispute concerning the interpretation or application of the Convention, it recognizes one or both of the following means of dispute settlement as compulsory in relation to any Party accepting the same obligation:
  - (a) Arbitration in accordance with procedures set out in Annex \_\_, part I; and
  - (b) Submission of the dispute to the International Court of Justice.

3. A Party that is a regional economic integration organization may make a declaration with like effect in relation to arbitration in accordance with the procedures referred to in paragraph 2 (a).
4. A declaration made pursuant to paragraph 2 or paragraph 3 shall remain in force until it expires in accordance with its terms or until three months after written notice of its revocation has been deposited with the Depositary.
5. The expiry of a declaration, a notice of revocation or a new declaration shall not in any way affect proceedings pending before an arbitral tribunal or the International Court of Justice unless the parties to the dispute otherwise agree.
6. If the parties to a dispute have not accepted the same procedure pursuant to paragraph 2 and if they have not been able to settle their dispute through the means mentioned in paragraph 1 within 12 months following notification by one Party to another that a dispute exists between them, the dispute shall be submitted to a conciliation commission at the request of any party to the dispute. The conciliation commission shall render a report with recommendations. Additional procedures relating to the conciliation commission are set out in Annex \_\_, Part II.

## Part X: Further development of the Convention

### 27. Amendments to the Convention

1. Amendments to this Convention may be proposed by any Party.
2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. The text of any proposed amendment shall be communicated to the Parties by the Secretariat at least six months before the meeting at which it is proposed for adoption. The Secretariat shall also communicate the proposed amendment to the signatories to this Convention and, for information, to the Depositary.
3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a X majority vote of the Parties present and voting at the meeting.
4. The adopted amendment shall be communicated by the Depositary to all Parties for ratification, acceptance or approval.
5. Ratification, acceptance or approval of an amendment shall be notified to the Depositary in writing. An amendment adopted in accordance with paragraph 3 shall enter into force for the Parties having accepted it on the ninetieth day after the date of deposit of instruments of ratification, acceptance or approval by at least X of the Parties. Thereafter, the amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits its instrument of ratification, acceptance or approval of the amendment.

### 28. Adoption and amendment of annexes

1. Annexes to this Convention shall form an integral part thereof and, unless expressly provided otherwise, a reference to this Convention constitutes at the same time a reference to any annexes thereto.
2. Any additional annexes adopted after the entry into force of this Convention shall be restricted to procedural, scientific, technical or administrative matters.
3. The following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention:
  - (a) Additional annexes shall be proposed and adopted according to the procedure laid down in paragraphs 1–3 of Article 27;
  - (b) Any Party that is unable to accept an additional annex shall so notify the Depositary, in writing, within one year from the date of communication of the adoption of the additional annex by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time withdraw a previous notification of non-acceptance in respect of an additional annex and the annex shall thereupon enter into force for that Party subject to subparagraph (c); and
  - (c) On the expiry of one year from the date of the communication by the Depositary of the adoption of an additional annex, the annex shall enter into force for all Parties that have not submitted a notification in accordance with the provisions of subparagraph (b).

4. ~~4.~~ The proposal, adoption and entry into force of amendments to annexes to this Convention shall be subject to the ~~same~~ following procedures:
- (a) Annex amendments shall be proposed in accordance with paragraphs 1 and 2 of Article 27:
  - (b) The Parties shall make every effort to reach agreement on any proposed annex amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a two-thirds majority of the Parties present and voting at the meeting of the Conference of the Parties.
  - (c) The decisions, which shall be binding on all Parties, shall forthwith be communicated to the Parties by the Depositary. Unless otherwise provided in the decisions, they shall enter into force on the expiry of six months from the date of the circulation of the communication by the Depositary.
5. ~~5.~~ If an additional annex or an amendment to an annex is related to an amendment to this Convention, the additional annex or amendment shall not enter into force until such time as the amendment to the Convention enters into force.

*Basis for Recommended ZMWG Revisions: Revised Paragraph 4 creates a streamlined process for making additions or revisions to existing annexes. A streamlined process is critical so that the COP may respond and adapt to changing conditions, such as new technologies or products which can further reduce mercury use or emissions, or new information on mercury uses or supplies previously unavailable. At this juncture of the negotiations, the details regarding the particular process we propose are less important than reaching agreement such a streamlined process is needed, therefore we urge delegates to propose their own streamlined process as warranted to facilitate discussion of this issue.*

## Part XI: Final provisions

*Comment: The remaining draft elements 29–36 are reproduced from the note on draft final provisions prepared by the secretariat for the committee's first session (UNEP(DTIE)/Hg/INC.1/7).*

### 29. Right to vote

1. Each Party to this Convention shall have one vote, except as provided for in paragraph 2.
2. A regional economic integration organization, on matters within its competence, shall exercise its right to vote with a number of votes equal to the number of its member States that are Parties to this Convention. Such an organization shall not exercise its right to vote if any of its member States exercises its right to vote, and vice versa.

### 30. Signature

This Convention shall be open for signature at \_\_\_ by all States and regional economic integration organizations from \_\_\_ to \_\_\_, and at the United Nations Headquarters in New York from \_\_\_ to \_\_\_.<sup>2</sup>

### 31. Ratification, acceptance, approval or accession

1. This Convention shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. It shall be open for accession by States and by regional economic integration organizations from the day after the date on which the Convention is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.
2. Any regional economic integration organization that becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations one or more of whose member States is a Party to this Convention, the organization and its member States shall decide on their respective responsibilities for the performance of

<sup>2</sup> The name of the place where the instrument to be adopted by a conference of plenipotentiaries may be signed and the period during which it will be open for signature will be inserted.

their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.

3. In its instrument of ratification, acceptance, approval or accession, a regional economic integration organization shall declare the extent of its competence in respect of the matters governed by this Convention. Any such organization shall also inform the Depositary, who shall in turn inform the Parties, of any relevant modification in the extent of its competence.

### **32. Entry into force**

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the X<sup>3</sup> instrument of ratification, acceptance, approval or accession.

2. For each State or regional economic integration organization that ratifies, accepts or approves this Convention or accedes thereto after the deposit of the X instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval or accession.

3. For the purposes of paragraphs 1 and 2, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of that organization.

### **33. Reservations**

No reservation may be made to this Convention.

### **34. Withdrawal**

1. At any time after three years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.

2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

### **35. Depositary**

The Secretary-General of the United Nations shall be the Depositary of this Convention.

### **36. Authentic texts**

1. The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

2. IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

3. Done at \_\_\_\_\_ on this \_\_\_\_ day of \_\_, two thousand and thirteen.

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3 For the Rotterdam Convention, the Stockholm Convention and the United Nations Framework Convention on Climate Change, the required number of instruments of ratification, acceptance, approval or accession for the Convention to enter into force is 50. For the Vienna Convention on the Protection of the Ozone Layer, the Basel Convention and the Convention on Biological Diversity, the number of ratification and other relevant instruments required for entry into force is 11, 20 and 30, respectively.



## Annex A

### Sources of mercury supply

1. Mercury recovery, recycling, and reprocessing operations, including [but not limited to mercury and mercury compounds](#) recovered from pollution controls for the source categories listed in Annex E, [and mercury and mercury compounds recovered from wastes \(such as mine tailings\)](#).
2. Mercury [and mercury compounds](#) produced as a by-product of non-ferrous metals mining and smelting, [and natural gas production](#).
3. Mercury from government reserve stocks and inventories.
4. Mercury [and mercury compounds](#) ~~stocks~~ from decommissioned chlor-alkali [production](#) plants.
5. Other private ~~mercury~~ [stocks of mercury and mercury compounds](#).

***Basis for Recommended ZMWG Revisions:** Paragraph 2 of the elements paper omits an important source of mercury byproduct generation – natural gas production. Generally, there are three recognized global hotspots for mercury in natural gas: Eastern/Central Europe, North Africa, and Southeast Asia. The mercury present as impurities in the natural gas (i.e., in excess of 50 µg/m<sup>3</sup>) is removed to protect piping and equipment health. High volume facilities may require even lower mercury contaminant levels, and Liquid Natural Gas (LNG) plants, or any plant using cryogenic separation of gas products, may experience precipitation of elemental mercury in streams higher than 10-20 µg/m<sup>3</sup>.*

*Accordingly, mercury removal units, or MRUs, are sometimes installed at gas processing facilities and at wellheads. They typically include carbon scrubbers or metal coated sulfide adsorbents. The carbon units can be combusted to recover the mercury, and the mercury captured by metal sulfide adsorbents can be recovered in a smelter. It should be noted not all the mercury captured by MRUs is currently recovered (see Annex E for additional discussion). For example, the activated carbon could be landfilled, depending upon local regulations and company policy. There are over 100 MRUs in use globally.*

*This source of byproduct mercury was documented in UNEP's reports on global supply and was highlighted by the government of Indonesia in a presentation to the Partnership Advisory Group in Geneva last September. While the amount of mercury recovered globally from natural gas production is not known and warrants further study, enough information is known to identify it as a significant byproduct mercury source.*

*The addition of mercury compounds to various places in the text is consistent with the new definition of mercury compounds in Article 2 and reflects the potential for compounds to become elemental mercury through recovery or processing operations.*

## **~~Annex B~~**

### **~~Mercury and mercury compounds subject to international trade and environmentally sound storage measures~~**

#### **~~Part I~~**

- ~~1. — Elemental (metallic) mercury(0).~~
- ~~2. — Mercury(I) chloride or calomel.~~
- ~~3. — Mercury(II) oxide.~~
- ~~4. — Mercury(II) sulfate.~~
- ~~5. — Mercury(II) nitrate.~~
- ~~6. — Cinnabar ore.~~
- ~~7. — Mixtures of elemental mercury with other substances, including alloys of mercury, with a mercury concentration of at least 95 per cent by weight.~~

~~Note: Except as otherwise provided in this Convention, this annex shall not apply to quantities of mercury or mercury compounds to be used for laboratory scale research or as a reference standard.~~

*Basis for Recommended ZMWG Revisions: The list of mercury compounds subject to trade measures is moved to new Annex B bis, since the storage provisions in Article 4 apply to elemental mercury, and not to all the compounds subject to the trade measures. Therefore, the list of compounds subject to trade measures requires its own Annex.*

## **Annex B ~~Part II~~: Guidance on environmentally sound storage**

In developing the guidance required under paragraph 2 of Article 4 on the environmentally sound storage of mercury ~~and mercury compounds~~, the Conference shall take into account, among other things:

- (a) ~~Relevant provisions of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and guidelines developed thereunder~~ Relevant provisions of environmentally sound storage of mercury guidelines developed by Parties and other applicable institutions or entities;
- (b) The respective advantages and disadvantages of global, regional and national approaches;
- (c) The need for flexibility, including through interim measures, until such time as facilities for long-term environmentally sound storage may become available to the Parties; and
- (d) The geographic, social and economic factors that may affect Parties' ability to achieve environmentally sound storage of mercury, taking particular account of the capacities and needs of developing-country Parties and Parties with economies in transition.

## Annex B bis

### Mercury and mercury compounds subject to international trade measures

1. Elemental (metallic) mercury(0).
2. Mercury(I) chloride or calomel.
3. Mercury(II) oxide.
4. Mercury(II) sulfate.
5. Mercury(II) nitrate.
6. Cinnabar ore.
7. Mixtures of elemental mercury with other substances, including alloys of mercury, with a mercury concentration of at least 95 per cent by weight.

Note: Except as otherwise provided in this Convention, this annex shall not apply to quantities of mercury or mercury compounds to be used for laboratory-scale research or as a reference standard.

## Annex C

### Part 1.

#### **Mercury-added products subject to production and international trade measures**

Mercury-added product	Allowable-use exemption
1. Batteries	
2. Measuring devices	
3. Electric switches and relays	
4. <del>Mercury-containing</del> Lamps <u>not meeting the limits specified in Part II</u>	
5. Dental amalgam	
<u>6. Soaps and cosmetics</u>	
<u>7. Paints</u>	
<u>8. Pesticides</u>	
<u>9. Topical antiseptics</u>	

Note: This annex shall not apply to the personal use of products that are not intended for resale.

### Part II

#### Lamp mercury content limits

1. No later than its second meeting, and as appropriate thereafter, the Conference of the Parties shall establish mercury or mercury compound content limits for the various types of mercury-added lamps based upon the lowest amount of mercury or mercury compounds demonstrated to be necessary for the proper functioning of lamps within each type, taking into account limits established by Parties or international entities. The Conference of the Parties shall establish a zero content limit for one or more lamp categories upon determining appropriate non-mercury alternatives are available, or the production of such lamps is no longer warranted due to technology advances.

2. The mercury content limits for mercury-added lamps are:

<u>Lamp Type</u>	<u>Maximum Mercury Content Limit</u>
<u>a. Compact fluorescent lamp less than 30 watts</u>	<u>2.5 mg</u>
<u>b. Compact fluorescent lamp equal to or greater than 30 watts, but less than 50</u>	<u>3.5 mg</u>

<a href="#">watts</a>	
<a href="#">c. Compact fluorescent lamp equal to or greater than 50 watts, but less than 150 watts</a>	<a href="#">5.0 mg</a>
<a href="#">d. High pressure mercury vapour lamps</a>	<a href="#">0.0 mg</a>
<a href="#">e. General purpose halophosphate T10 and T12 fluorescent lamps (all sizes)</a>	<a href="#">0.0 mg</a>

*Basis for Recommended ZMWG Revisions:* Additional product categories are recommended for inclusion in Annex C. Soaps and cosmetics (i.e., skin lightening creams) are recommended due to the documented adverse effects of mercury use through these products and the ready availability of non-mercury alternatives. Topical antiseptics, such as mercurochrome, also have non-mercury alternatives, and similarly expose people unnecessarily through direct dermal exposure. Paints and pesticides were historically very high uses of mercury, and its unclear whether and to what extent these uses are still ongoing, particularly in the developing world. Even if such uses are relatively minor, their inclusion in Annex C can be viewed as anti-backsliding provisions requiring little effort to achieve compliance. We considered adding plasticizers (i.e., polyurethane elastomers) to Annex C, but instead chose to add them to Annex D since the production process involves the use of mercury catalysts. Either approach is acceptable, provided this mercury use is subject to a prompt phase-out requirement. See Annex D for additional information.

Regarding lamps, a process for setting mercury content limits is recommended over an outright mercury use prohibition, since the prohibition approach could merely result in blanket allowable use exemptions without minimizing the amount of mercury consumed short-term in this production sector. The recommended approach would authorize both setting maximum content limits where mercury is still needed to manufacture lamps, and a prohibition against mercury use (by setting a content limit of zero) where non-mercury alternatives are available or the particular category of lamps is outdated.

For specified high priority categories, recommended content limits are included in a new Part II of the Annex. The limits are based on upon the new standards established under the EU Restriction of Hazardous Substances directive (RoHS) (see [http://ec.europa.eu/environment/waste/weee/index\\_en.htm](http://ec.europa.eu/environment/waste/weee/index_en.htm) and <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2002L0095:20100925:EN:HTML>), following a multi-year process involving expert review and stakeholder involvement. The COP may lower these content limits and will set limits for other lamp categories no later than at its second meeting, and as needed afterward. This process of adding and revising lamp content limits is an important reason a streamlined approach for annex revisions is required, as discussed under Article 28. The technology for lamp production can be expected to advance significantly over the next 10-20 years, therefore the Convention annex must stay current with the technology as mercury use is minimized and eventually eliminated.

## Annex D

### Manufacturing processes in which mercury is used

#### Part I

Manufacturing process	Allowable-use exemption
1. Chlor-alkali production <sup>4</sup>	
2. Vinyl chloride monomer production	
<a href="#">3. Polyurethane elastomer production</a>	

#### Part II: National action plans

Each Party required to prepare a national action plan under Article 8 shall include in its plan, at a minimum:

- (a) An inventory of the number and type of facilities that use mercury in the manufacturing processes listed in Part I, including estimates of the amount of mercury that [are located at the facilities and the amount](#) they consume annually;
- (b) Strategies for achieving a [prompt](#) transition by the facilities referred to in subparagraph (a) to the use of non-mercury production processes or for replacing them with facilities that employ such processes;
- (c) Strategies for promoting or requiring the reduction of mercury releases from facilities identified in subparagraph (a) until such time as they achieve a transition to the use of non-mercury production processes or are replaced by facilities that employ such processes;
- (d) [Strategies for ensuring the mercury located at the facilities identified in paragraph \(a\) is managed in accordance with Articles 3 and 5 of this Convention;](#)
- (e) Targets and timetables for achieving the strategies referred to in the preceding subparagraphs;
- (f) A review, every ~~three~~<sup>five</sup> years, of the Party's strategies and their success in enabling the Party to meet its obligations under Article 8; such reviews shall be included in reports submitted pursuant to Article 22; and
- (g) A schedule for implementation of the action plan.

*Basis for Recommended ZMWG Revisions: Polyurethane elastomers are sometimes manufactured using mercury catalysts, and are added to Part I. Consultants reporting to the European Commission recently estimated global annual consumption of 300-350 MT of mercury catalyst, translating to over 100 MT of mercury at mercury concentrations in the catalyst of approximately 30-35%. Most of this catalyst winds up in the final product, such as gym floors in schools and undersea applications. These EU consultants also report non-mercury alternatives are available for over 95% of plasticizer applications. See [http://ec.europa.eu/environment/chemicals/mercury/pdf/study\\_report2008.pdf](http://ec.europa.eu/environment/chemicals/mercury/pdf/study_report2008.pdf), Section 2.7.1.2.*

<sup>4</sup> For the purposes of Annexes A and D, "chlor-alkali production" shall mean the manufacture of chlorine, caustic soda, or sodium methylate using a mercury cell process.



*This mercury use should be phased out as soon as possible, and thus included within Annex D.*

*A definition of chlor-alkali production is proposed, which clarifies that sodium methylate produced using the mercury cell process is captured within this definition. In the EU, two sodium methylate plants now account for a reported 10% of mercury consumed using mercury cell technology, and may grow over time since the finished product is used to manufacture biodiesel. Since there are well-developed, high-volume non-mercury alternatives available to produce sodium methylate (see i.e., [http://www2.dupont.com/Reactive\\_Metals/en\\_US/products/sodium\\_methylate.html](http://www2.dupont.com/Reactive_Metals/en_US/products/sodium_methylate.html), [http://www.biodieselmagazine.com/article.jsp?article\\_id=3979](http://www.biodieselmagazine.com/article.jsp?article_id=3979)) , this form of mercury cell use should be phased out, and could become a big loophole if not included with the chlor-alkali production definition.*

*In Part II, revisions to Paragraphs (a) and (d) are intended to ensure the mercury located at these facilities is quantified and properly managed in accordance with the treaty storage and trade provisions after the facilities are closed or converted. Reviews of the plans are recommended every three years to ensure continued and rapid progress toward phasing out mercury use in these sectors.*

## Annex E

### Atmospheric emissions

#### Part I: Source categories

1. Coal-fired power plants and industrial boilers.
2. Non-ferrous metals production facilities.
3. Waste incineration facilities.
4. Cement production factories.
5. [Natural gas production facilities.](#)
6. [\[Petroleum refining facilities\]](#)

#### Part II: National action plans

Each Party with significant aggregate mercury emissions from the source categories listed in Part I shall develop a national action plan to reduce and, where feasible, eliminate its atmospheric mercury emissions from those source categories. The action plan shall include, at a minimum:

- (a) An evaluation of current and projected atmospheric mercury emissions from the source categories listed in Part I, including the development and maintenance of source inventories and emissions estimates;
- (b) Strategies and timetables for achieving the Party's national atmospheric mercury emissions reduction goal adopted pursuant to paragraph 5 of Article 10;
- (c) Consideration of the use of emissions limit values for new and, where feasible, existing emissions sources;
- (d) Application of best available techniques and best environmental practices, as specified in paragraphs 2–4 of Article 10, including the consideration of substitute or modified fuels, materials and processes;
- (e) Provision for monitoring and quantifying emissions reductions achieved under the action plan, [including application of best monitoring and reporting techniques](#);
- (f) A review, every five years, of the Party's emissions reduction strategies and their success in enabling the Party to meet its obligations under Article 10; such reviews shall be included in reports submitted pursuant to Article 22; and
- (g) A schedule for implementation of the action plan.

***Basis for Recommended ZMWG Revisions:** Natural gas production facilities are included as a priority air emission source category to be controlled under this Convention. As discussed earlier under Annex A, mercury impurities are present in natural gas at high concentrations in certain locations around the world. This mercury is not always removed. If it is not removed, the mercury will be ensnared at the gas processing facilities by AGRU (amine gas removal unit) or TEG (triethylene glycol drier) units that are dehydrating and removing amine gases from the raw gas. At a TEG, mercury would most likely be vented directly to the atmosphere, and at an AGRU, would probably be diverted to fuel gas that would be burned to heat/run various aspects of the processing facility. These two processes can reportedly release 50-80% of raw gas mercury into the atmosphere during gas processing. Even where mercury removal units (MRUs) are installed, the captured mercury in the MRU units may not be appropriately managed afterward, such as where carbon units are burned without mercury capture and control capabilities.*

*We recognize natural gas production facilities were not included within the Paragraph 29 study, and thus INC delegates may know less about this source category. Accordingly, we*

*urge further INC investigation of this source category prior to INC 3, so that a reasoned decision can be made about its inclusion in Annex E. We have prepared a brief, but more detailed paper on this source category for those interested in additional information.*

*The proposed revision to Part II would clarify that BAT would including monitoring equipment, such as continuous emission monitors (CEMs).*

## Annex F

### Sources of mercury and mercury compound releases to water and land

1. Facilities that manufacture mercury-added products.
2. Facilities that use mercury in the manufacturing processes listed in Annex D.
3. Facilities for mercury recovery, recycling, and reprocessing and facilities where mercury is produced as a by-product of non-ferrous metals mining and smelting, as listed in Annex A.
4. Artisanal and small-scale gold mining.
5. Facilities for the disposal of mercury-containing wastes, including mercury-containing wastes generated from the processes listed in Annexes D and E
6. Sites contaminated by mercury and mercury compounds.
7. Dental offices.

***Basis for Recommended ZMWG Revisions:** Three revisions are proposed for this Annex. First, the addition of “mercury compounds” is consistent with its new definition in Article 2 and reflects the scope of mercury releases of concern. Second, text is added to clarify that waste disposal facilities include facilities disposing of wastes from the production and combustion processes listed in Annexes D and E. Therefore, for example, disposal facilities receiving mercury-containing fly ash from coal –power power plants would be included within this Annex. Lastly, dental offices are proposed as an addition to the annex, reflecting their relative importance as a mercury release source to water, either directly or through wastewater treatment plants. In the USA, dental offices comprise the largest mercury discharge source to wastewater treatment plants, thus the US EPA has initiated rulemaking to impose BAT/BEP requirements on this source category, including the installation of amalgam separators. We note that even if dental amalgam is phased down or out sometime in the near future, dental offices will remain significant sources of mercury discharges due to the repair or replacement of existing dental fillings.*

## Annex G

### Elements of Artisanal and Small-Scale Gold Mining National action plans

Each Party required to prepare and implement a national action plan under Article 9 shall include in its plan, at a minimum:

1. Strategies to prevent specific practices such as whole ore amalgamation, the burning of amalgam without a vapour capture method, and the use of cyanide after mercury amalgamation or for processing mercury contaminated tailings without first removing the mercury in the short-term;
2. Other strategies to control domestic use of mercury and mercury compounds in ASGM.
3. Strategies for providing information to small-scale gold miners and affected communities;
4. Strategies to control mercury and mercury compounds recovered from ASGM including from sites contaminated with mercury
5. Strategies for achieving a longer term objective of eliminating mercury and mercury compound use in small-scale gold mining;
6. Strategies for identifying and addressing highly contaminated sites;
7. Strategies for involving stakeholders in plan development and implementation;
8. Strategies to prevent, in accordance with Article 5, the import of mercury and mercury compounds for use in artisanal and small-scale gold mining and the diversion of mercury and mercury compounds for use in that sector;
9. Targets and timetables for achieving the strategies referred to in the preceding paragraphs;
10. Mercury or mercury compound use reduction goals associated with achieving the targets in Paragraph 9;
11. A review every three years of the Party's strategies and their success in enabling the Party to meet its obligations under Article 9; such reviews shall be included in reports submitted pursuant to Article 22; and
12. A schedule for implementation of the action plan.

***Basis for Recommended ZMWG Revisions:** Under new Annex G, Parties with ASGM would be required to prepare and implement action plans which specify how use and release reductions will be achieved, including when and how the worst mercury management practices will be eliminated, a long-term objective for eliminating mercury use in ASGM, a mechanism for identifying and addressing heavily contaminated sites, and opportunities for stakeholder (including those working on poverty alleviation) involvement in plan development and implementation. We anticipate the preparation of guidance and other materials to assist Parties with their plan preparation and implementation. Flexibility is provided as to how the individual program components can be achieved, but the areas to be included are clearly defined.*