



REPORTING FORMAT FOR THE MINAMATA CONVENTION ON MERCURY:

KEY OBJECTIVES FOR CONSIDERATION AT INC 7

Article 21 expressly provides that Parties shall report on (1) measures taken to implement the Convention **and** (2) the effectiveness of those measures in meeting the Convention objectives.¹ If Article 21 fails to provide needed information, other ad hoc and potentially duplicative mechanisms will likely be developed to support the evaluation of Convention effectiveness required under Article 22, and to otherwise adapt Convention activities to events on the ground.

This summary contains Zero Mercury Working Group (ZMWG) recommendations for information that should be reported under Article 21, for the major control measure articles of the Convention. To guide these recommendations, we considered the following questions:

- 1. What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?
- 2. What is the anticipated burden of this reporting?
- 3. Are affected governments already collecting this information as part of ratification preparation, or to comply with Convention obligations?
- 4. Is this information otherwise available to the Secretariat or the public?

Further details on these questions for each Article can be found in Annex 1 of this document.

In this summary, we do not make specific recommendations on the frequency of reporting. However, the most frequent reporting should be required for the Article 3 information on mercury production and trade, because this information can dramatically change over longer periods of time. As the compilation of reporting frequency in other Conventions prepared by the Secretariat indicates (INC 7/11), it is the norm to require annual or biennial reporting for data on chemical production and trade; we think a similar frequency for mercury production and trade is appropriate for the Minamata Convention.

Summary of Recommended Reporting Requirements

Article 3	 Current mercury (and relevant compound) production data for each of the four mercury supply sources (primary mining, decommissioning chlor-alkali plants,² byproduct production from oil/gas production and non-ferrous mining, and waste recycling). Mercury trade data not provided to the Secretariat in the consent forms. Information on mercury stocks holding in excess of 50 MT of mercury (typically by mercury traders or at chlor-alkali plants).
Article 4	 Amount of mercury used in the manufacture of products listed in Annex A. Measures to achieve compliance with phase-outs in products manufacture, including products subject to an Article 6 registration. Measures to phase down dental amalgam and discourage new product types. Information on reduction measures and mercury use quantities for products not yet at <i>de minimis</i> levels, in the rare cases where governments are complying under Article 4.2.
Article 5	 Anticipated decommissioning date for remaining chlor-alkali plants, the disposition of the mercury for any plants decommissioned since the Convention came into force or when the last report was submitted (whichever is later), and the planned disposition of the mercury in cases the anticipated decommissioning date is before the next report is due. Amount of mercury currently used in VCM, polyurethane, and alcoholates production, and the measures taken to comply with applicable Part II of Annex B requirements. Measures to discourage new mercury processes.
Article 7	 Baseline estimate of mercury use, and progress made in developing a National Action Plan (NAP) including estimated submission date, if the government has declared mercury use is more than insignificant but has <u>not</u> yet submitted its NAP to the Secretariat. Where the NAP was already submitted, data on current mercury use, reductions achieved to date, and the anticipated date for submitting the next required three year progress report <u>if</u> the applicable deadline has passed (and an accompanying explanation for the delay).³
Article 8	 The BAT/BEP measures required for new sources in each source category, including any ELVs. The control measures adopted for existing sources in each source category, including any ELVs and applicable effective dates.

² We are aware there is some redundancy in the reporting applicable to chlor-alkali plants in this paper, under Articles 3 and 5. This redundancy reflects two possible avenues for collecting some of the necessary information, without knowing in advance which avenue the INC may prefer.

³ Since the timing of NAP submissions will vary from country to country, we propose that the three year NAP progress updates required under Article 7.3(c) be provided separately from the Article 21 reports when the two deadlines do not match.

	 Criteria established, if any, under Paragraph 2(b) to exclude facilities from the control measures, including the rationale for achieving at least 75% coverage of emissions from the particular source category. Current emissions inventory data or link to the inventory data base website, or date inventory will be completed and any explanation for not meeting five year deadline where applicable.
Article 9	 Identification of the relevant sources the government intends to control, if any, or the anticipated date for identification and an explanation for the delay. Description of the measures adopted to control releases to land and water for each relevant source category identified, or anticipated date for adoption of control measures and an explanation for the delay. Quantity of mercury/mercury compounds released to land and water from each of the relevant sources or link to inventory data base website, or date inventory will be completed and any explanation for the delay if Convention compliance deadline has already passed.
Article 10	• Measures taken to ensure environmentally sound interim storage, including applicability to any large stocks identified under Article 3.
Article 11	• Measures adopted to ensure compliance with Paragraph 3 for the categories of wastes generated within the country.

ANNEX 1. IN-DEPTH DISCUSSION AND RATIONALE FOR RECOMMENDED REPORTING REQUIREMENTS

Article 3 Mercury Supply and Trade

What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?

- Current mercury (and relevant compound) production data for each of the four mercury supply sources (primary mining, decommissioning chlor-alkali plants,⁴ byproduct production from oil/gas production and nonferrous mining, and waste recycling).
- Mercury trade data not provided to the Secretariat in the consent forms.
- **Information on mercury stocks** holding in excess of 50 MT of mercury (typically by mercury traders or at chlor-alkali plants).

Reporting Burden?

Production data	 Only a small minority of developing countries will be affected. Most developing countries do not have primary mercury mines, mercury retorts capable of producing mercury from wastes, or byproduct mercury production in reportable quantities (exceeding 10 MT/yr). There are less than 30 developing countries with mercury cell chloralkali plants in the 2013 UNEP Global Mercury Partnership (GMP) chloralkali plant inventory,⁵ and in some of these countries, the plants will be closed or converted before the first report will be submitted. Governments with mercury cell chloralkali plants have an obligation under Article 5.5(c) to report to the Secretariat every three years on the estimated amount of mercury used at these facilities.⁶
Trade data	 The number of countries affected will be limited to Parties not sub- mitting individual transaction forms to the Secretariat, and Parties providing a general notice of consent.⁷
Information on stocks	 Very few developing countries should have mercury stocks of this magnitude.

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⁴ Again, we are aware there is some redundancy in the reporting applicable to chlor-alkali plants in this paper, under Articles 3 and 5. This redundancy reflects two possible avenues for collecting some of the necessary information, without knowing in advance which avenue the INC may prefer.

⁵ See http://www.unep.org/chemicalsandwaste/Mercury/GlobalMercuryPartnership/ChloralkaliSector/Reports/tabid/4495/language/en-US/Default.aspx.

⁶ While Article 5.5(c) uses the term "endeavor" to identify the chlor-alkali facilities, the fact that UNEP has already published an inventory of these facilities means virtually no effort is now required to identify the facilities in the countries covered by the inventory.

⁷ Under the draft guidance for consideration at INC 7, it is "recommended" but not required that copies of trade consent forms be transmitted to the Secretariat (INC 7/3, p. 5.). Governments may be further encouraged to provide the forms if Article 21 reporting on the transactions is otherwise required.

Production data	 Mercury quantities produced from primary mining and potentially from decommissioning chlor-alkali plants should be known based upon already conducted baseline assessments and the UNEP GMP chlor-alkali facility inventory. The data should be updated regularly since these sources are expressly covered by Article 3 restrictions on whether and how this mercury can be used. Governments with both primary mines and VCM plants must take measures to reduce reliance on mercury from primary mining for VCM production, under Part II of Annex B, and thus should be collecting data on primary mining to comply with this provision. Mercury production quantities associated with nonferrous metal/oil & gas production, and from waste recycling, are typically estimated in national baseline assessments. Updated quantity data will also be derived through the Article 3.5 stocks identification obligation where generated in excess of 10 metric tons per year,⁸ and related obligations under Articles 10 and 11.⁹
Trade data	 Developed world governments expected to rely upon a general notice of consent currently provide mercury import data now to various international bodies.
Information on stocks	• Mercury traders should be readily identified via the trade consent process and mercury inventory activities, and chlor-alkali plants are identified through the UNEP inventory.

Data otherwise available?

Production data	• There is no other mechanism currently in place to routinely collect global mercury production data. UNEP and others have produced periodic estimates of global supply and trade, but the estimates provided lacked precision because national production data were not available.
Trade data	 In those instances where trade data are not provided to the Secretariat, COMTRADE is the typical alternative data source and has limita- tions.
Information on stocks	 There is no other mechanism currently available to collect this in- formation.

Conclusion: The mercury production data are necessary to understand the current global mercury supply situation and trends over time, essential information for the COP and national governments to implement the Convention and measure progress in reducing the global mercury supply. The production data will also facilitate the understanding of illegal mercury trade, through a better accounting of legal material flow. Addressing illegal mercury trade will be a critical component of reducing mercury use in ASGM. Requiring reporting on mercury production data for each of the four mercury supply sources will not pose an additional burden to the vast majority of countries in the developing world. Global reporting burdens associated with Article 3 can be minimized by integrating use of the mercury trade data otherwise provided to the Secretariat.

⁸ The Paragraph 5 stocks provision also applies to mercury stocks stored in excess of 50 MT/yr. Most facilities storing mercury in excess of 50 MT would also be generating mercury in excess of 10 MT/yr, with the possible exception of mercury traders and chlor-alkali plants.

⁹ We are aware the Paragraph 5 identification obligation is to "endeavor" to identify these stocks, and thus may be construed as technically non-binding, but we note the Article 10 obligations to ensure the safe storage of this mercury is a mandatory obligation which, by necessity, requires that these large stocks be identified. Moreover, Parties have a mandatory obligation to ensure any mercury recovered from waste management is reused only for an allowed use, pursuant to Article 11.3(b). Accordingly, the "endeavor" text in Article 3 must be read in concert with mandatory obligations in Articles 10 and 11.

Article 4 Mercury Added Products

What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?

- Amount of mercury used in the manufacture of products listed in Annex A.
- **Measures to achieve compliance with phase-outs** in product manufacture, including products subject to an Article 6 registration.
- Measures to phase down dental amalgam and discourage new product types.
- Information on reduction measures and mercury use quantities for products not yet at *de minimis* levels, in the rare cases where governments are complying under Article 4.2.

Reporting Burden?

Amount of mercury used in the manufacture of products	A relatively small number of countries in the developing world man- ufacture products listed in Annex A.
Measures to achieve compliance with phase-outs	A relatively small number of countries in the developing world man- ufacture products listed in Annex A.
Measures to phase down dental amalgam and discourage new product types	All governments must report on measures to phase down dental amalgam, and discourage new products. The development of measures to discourage new products and phase down dental amalgam are required Convention obligations. Minor updates may be needed during implementation phases.
Information on reduction measures and mercury use quantities for products not yet at <i>de minimis</i> levels	It is unlikely developing countries will pursue alternative com- pliance under Article 4.2, since this approach requires that governments already possess good data on mercury use and a history of mercury reduc- tion activities prior to Convention ratification.

Amount of mercury used in the manufacture of products	Mercury use data in product manufacture are collected as part of base- line assessments, MIAs, and Article 6 registrations (where ap- plicable). Updates will be necessary to determine progress in implementing phase-outs as governments prepare for Annex A review and/or subsequent Article 6 exemption processes.
Measures to achieve compliance with phase-outs	Developed as part of MIA, ratification, and Article 6 registration processes.
Measures to phase down dental amalgam and discourage new product types	Developed as part of MIA, ratification, and Article 6 registration processes.
Information on reduction measures and mercury use quantities for prod- ucts not yet at <i>de minimis</i> levels	Governments pursuing Article 4.2 compliance are required to report to the COP on the quantification of progress achieved, and the COP must evaluate within five years of the Convention coming into force the effectiveness of the measures taken under this paragraph.

Data otherwise available?

Amount of mercury used in the manufacture of products	There is no other mechanism currently in place to routinely collect mercury use data in product manufacturing. UNEP and others have prepared periodic global estimates, but these estimates lacked precision due to the lack of national use data.
Measures to achieve compliance with phase-outs	Information on measures to phase out product manufacturing is not other- wise available . The Article 6 registrations, where applicable, contain in- formation on which products are subject to delayed phase out dates in those countries, but no information is provided on measures taken to ultimately meet phase out obligations.
Measures to phase down dental amalgam and discourage new product types	There is no other mechanism currently available to identify measures for complying with the dental amalgam phase down require- ments, or the measures to discourage new products.
Information on reduction measures and mercury use quantities for prod- ucts not yet at <i>de minimis</i> levels	There is no mechanism currently available to obtain this information.

CONCLUSION: Mercury use data in product manufacturing, and the measures taken to phase out mercury use in Annex A products, is the basic information needed to understand the current global mercury demand and associated trends for mercury products regulated under the Convention, and for monitoring compliance with the Article. By limiting the reporting to product manufacturing (as opposed to import and export), the global burden is targeted and minimal. Duplication with Article 6 registration data can be avoided. Reporting on measures to phase down amalgam and discourage new uses will likely require a one-time description with relatively minor updates thereafter.

Article 5 Mercury Use in Manufacturing Processes

What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?

- Anticipated decommissioning date for remaining chlor-alkali plants, the disposition of the mercury for any plants decommissioned since the Convention came into force or when the last report was submitted (whichever is later), and the planned disposition of the mercury in cases the anticipated decommissioning date is before the next report is due.
- Amount of mercury currently used in VCM, polyurethane, and alcoholate production, and the measures taken to comply with applicable Part II of Annex B requirements.
- Measures to discourage new mercury processes.

Reporting Burden?

Anticipated decommissioning date for remaining chlor-alkali plants, and disposition of the mercury	Less than 30 developing countries will have mercury cell chlor-alkali plants when the first report is due.
Mercury use in VCM, polyurethane, and alcoholate production	Only a handful of developing countries have mercury use in the VCM and polyurethane sectors combined based on available information, and no developing country is affected for the methylate/ethylate compounds.
Measures to discourage new mercury processes.	All governments must implement measures to discourage new processes.

Anticipated decommissioning date for remaining chlor-alkali plants, and disposition of the mercury	Anticipated mercury cell plant closure dates will be initially known based on domestic law and/or decisions made whether to register for an Article 6 exemption at the time of ratification, and then updated to ensure ongoing compliance. Mercury disposition information will be necessary to enforce Article 3 restrictions on mercury use at time of decommissioning.
Mercury use in VCM, polyurethane, and alcoholate production	The amount of mercury used for Annex B, Part II sectors is includ- ed within baseline assessments , and must be updated to ensure compli- ance with use reduction mandates in Part II of Annex B and Article 5.5(c). ¹⁰ Reporting on measures to comply with Part II is required by Article 5.5(b).
Measures to discourage new mercury processes.	The development of measures to discourage new processes is a required Con- vention obligation; minor updates may be necessary during the implementa- tion phases.

Data otherwise available?

Anticipated decommissioning date for remaining chlor-alkali plants, and disposition of the mercury	There is no other mechanism for obtaining anticipated chlor-alkali facility decommissioning dates, particularly where Article 6 exemptions are not pursued. ¹¹ Trade consent data may provide information on the past disposition of some of the decommissioned mercury, but it will not cover domestic transfers and uses, nor will it cover anticipated plant closures during the next three years.
Mercury use in VCM, polyurethane, and alcoholate production	There is no other mechanism for obtaining information on mer- cury use and compliance measures for the Annex B, Part II sectors; indeed, the Convention text (Paragraph 5(b) of Article 5) stipulates Article 21 reporting will be the principle data gathering mechanism.
Measures to discourage new mercury processes.	There is no other mechanism currently in place for obtaining informa- tion on measures to discourage new processes.

CONCLUSION: Industrial processes account for a substantial portion of global mercury demand (over 1,000 MT/yr), thus progress in reducing mercury demand will be an important indicator of Convention effectiveness. Measures to comply with Part II of Annex B are critical components of Article 5 compliance, given most of the demand lies within the sectors identified in Part II. The effectiveness of the phase-out requirement for chlor-alkali plants (and the associated Article 3 mercury supply restrictions) can be tracked through the reporting of anticipated decommissioning dates and the disposition of the associated mercury. This information will not typically be available elsewhere, and does not pose a significant additional burden on the limited number of countries involved, since the data will otherwise be obtained for Convention or related purposes.

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¹⁰ Again, while Paragraph 5(c) of Article 5 requires Parties to "endeavor" to identify such facilities and provide the use data, the reality is governments should have identified these facilities as part of their baseline assessments. China faces the greatest identification burden based upon the number of VCM plants, but due to enabling activities and domestic initiatives, China has identified the VCM plants, and obtains periodic estimates of mercury use within the sector. Under its Clean Production Plan for the VCM industry, China must reduce mercury consumption for this sector, and thus must track demand reduction progress.

¹¹ In theory, the UNEP inventory could provide this information, but the inventory is prepared by surveying companies, not governments. Therefore, the anticipated closure dates may not reflect official government policy.



What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?

- Baseline estimate of mercury use, and progress made in developing a National Action Plan (NAP) including estimated submission date, if the government has declared mercury use is more than insignificant but has <u>not</u> yet submitted its NAP to the Secretariat.
- Where the NAP was already submitted, data on current mercury use, reductions achieved to date, and the anticipated date for submitting the next required three year progress report <u>if</u> the applicable deadline has passed (and an accompanying explanation for the delay).¹²

Reporting Burden?

- All countries in the developing world where ASGM is more than insignificant must prepare a NAP under Article 7.
- Where the NAP has not yet been submitted, governments are required to develop and submit a NAP within three years of becoming a Party, including developing a baseline estimate of mercury use.

Data already collected?

• Reporting on mercury use reductions is required under Article 7 every three years.

Data otherwise available?

• NAPs and three year progress reports are submitted to the Secretariat, and available to the public.

CONCLUSION: The Article 21 reporting burden can be greatly minimized, and duplication can be avoided, by relying upon the NAPs and Article 7 progress reports for details about compliance measures. The focus under Article 21 should be on compliance with the NAP and progress report obligations, and estimating current mercury use to track mercury supply, trade and flows.



What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?

- The **BAT/BEP measures required for new sources** in each source category, including any ELVs.
- The **control measures adopted for existing sources** in each source category, including any ELVs and applicable effective dates.
- Criteria established, if any, under Paragraph 2(b) to exclude facilities from the control measures, including the rationale for achieving at least 75% coverage of emissions from the particular source category.
- **Current emissions inventory data** or link to the inventory database website, or date inventory will be completed and any explanation for not meeting five year deadline where applicable.

Reporting Burden?

BAT/BEP for new sources; control measures for existing sources; summary of emission monitoring requirements	A minority of developing countries has relevant air emissions sources; and some of these countries only have a small number of covered sources.
Criteria established to exclude facilities from the control measures, including the rationale for achieving at least 75% coverage of emissions	Optional for Parties. Countries with a small number of sources may choose to regulate all sources instead of developing criteria for exclusions under Paragraph 2(b).
Emissions inventory data	A minority of developing countries has relevant air emissions sources; and some of these countries only have a small number of covered sources.

BAT/BEP for new sources; control measures for existing sources; summary of emission monitoring requirements	New and existing facility control and monitoring measures must be devel- oped under Paragraphs 4-6 of Article 8. Reporting on the measures adopt- ed will require a one-time initial description, and then minor updating as needed.
Criteria established to exclude facilities from the control measures, including the rationale for achieving at least 75% coverage of emissions	As specified in the proposed guidance (INC 7/6 Add 3), there should be a factual basis underlying the criteria which demonstrates at least 75% of the emissions from the source category are controlled.
Emissions inventory data	Baseline data compiled as part of MIA activities , level 1 and 2 inventories, and/or baseline situation assessments as part of ratification processes. Development and update of inventories is required under Paragraph 7.

Data otherwise available?

BAT/BEP for new sources; control measures for existing sources; summary of emission monitoring requirements	There is no other mechanism currently available for obtaining this information.
Criteria established to exclude facilities from the control measures, including the rationale for achieving at least 75% coverage of emissions	There is no other mechanism currently available for obtaining this information.
Emissions inventory data	There is no other mechanism currently available for obtaining these data. Historically, UNEP prepared several emissions inventories which required a substantial expenditure of time and resources, and took more than a year to complete.

CONCLUSION: Reporting on measures to control air emissions, and current emissions quantities, is necessary to monitor progress and evaluate Convention effectiveness. If this information is not provided under Article 21, substantial resources and time will be spent obtaining this information under alternative mechanisms.



What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?

- **Identification of the relevant sources** the government intends to control, if any, or the anticipated date for identification and an explanation for the delay.
- Description of the measures adopted to control releases to land and water for each relevant source category identified, or anticipated date for adoption of control measures and an explanation for the delay.
- Quantity of mercury/mercury compounds released to land and water from each of the relevant sources or link to inventory data base website, or date inventory will be completed and any explanation for the delay if Convention compliance deadline has already passed.

Reporting Burden?

• All governments are subject to the Article 9 obligations, but many developing nations may **not** have significant sources of mercury releases to land and water not otherwise addressed under the ASGM and waste Articles (Articles 7 and 11), and thus may not identify relevant sources.

Data already collected?

- Initial data will be obtained through baseline assessments and ratification processes addressing Article 9 obligations.
- The development of control measures and the preparation/maintenance of inventories are Article 9 obligations.

Data otherwise available?

• There is **no other mechanism currently available to obtain the needed data.** UNEP had prepared a global assessment addressing releases to land and water, but since Parties may select different relevant source categories under the Convention, it may be very challenging to perform a similar study covering relevant sources as identified by the Parties.

CONCLUSION: Reporting on measures and reductions in releases to land and water will facilitate an evaluation of Convention effectiveness. If this information is not provided under Article 21, it may be very challenging to obtain this information under alternative mechanisms.

Article 10 Interim Mercury Storage

What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?

• Measures taken to ensure environmentally sound interim storage, including applicability to any large stocks identified under Article 3.

Reporting Burden?

• **Only a small number of governments** are expected to have large stocks, but additional governments will be subject to storage obligations due to accumulation of mercury in smaller quantities.

Data already collected?

• Storage needs are evaluated as part of baseline assessments in MIAs and ratification processes.

Data otherwise available?

• There is no other mechanism currently available to obtain this information.

CONCLUSION: Assuming data on large stocks is otherwise provided under Article 3, Article 10 reporting can focus on the measures undertaken to ensure any interim storage is environmentally sound. This is a straightforward reporting obligation linked to the core compliance aspect of the Article, not available otherwise.

Article 11 Mercury Wastes

What is the most important information the COP and other stakeholders need to know about Convention compliance and effectiveness?

• Measures adopted to ensure compliance with Paragraph 3 for the categories of wastes generated within the country.

Reporting Burden?

• All governments are obligated to comply and report, although countries without mercury retorts or industrial process wastes, who are also Parties to the Basel Convention, will report on a narrower set of wastes and associated measures.

Data already collected?

• The types of mercury wastes generated, and associated national management capacities and requirements, were components of baseline assessments and ratification processes. Many of these wastes are already designated hazardous wastes under national law and subject to hazardous waste management standards.

Data otherwise available?

• There is **no other mechanism currently available** to obtain this information.

CONCLUSION: This is a straightforward reporting obligation linked to the core compliance aspect of the Article, not available otherwise.

Layout and Design:

