

FIRST FULL NATIONAL REPORTS OF THE MINAMATA CONVENTION ON MERCURY 2021



* Question 13.1 amended by Finland on 24 August 2022

REPORTING PERIOD:

16 August 2017 to 31 December 2020

▼ INFORMATION ON THE PARTY

1. Information on the party

Name of party

Finland

Date on which its instrument of ratification, accession, approval or acceptance was deposited

1 June 2017

Date of entry into force of the Convention for the party

30 August 2017

2. Information on the national focal point

Full name of the institution

Ministry of the Environment

Title of National Focal Point

Ms.

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Focal Point is submitting the national report

☐ Information is submitted by the national focal point

☒ Information is submitted through the national focal point by the contact officer

a3_subsection

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▼ ART. 3: MERCURY SUPPLY SOURCES AND TRADE

3.1. Does the party have any primary mercury mines that were operating within its territory at the date of entry into force of the Convention for the party?

☐ Yes

☒ No

Additional information on this question if needed

{Empty}

3.2. Does the party have any primary mercury mines that are now in operation that were not in operation at the time of entry into force of the Convention for the party?

☐ Yes

☒ No

3.3. Has the party endeavoured to identify individual stocks of mercury or mercury compounds exceeding 50 metric tons and sources of mercury supply generating stocks exceeding 10 metric tons per year that are located within its territory?

☒ Yes

☐ No

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*If the party answered Yes to Question 3 above:

i. Please attach the results of your endeavor or indicate where it is available on the internet, unless unchanged from a previous reporting round.

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i. Please attach the results of your endeavor or indicate where it is available on the internet, unless unchanged from a previous reporting round.

- [FIN_3.3.docx](#)

ii. Supplemental: Please provide any related information, for example on the use or disposal of mercury from such stocks and sources.

Most of the mercury from the chlor-alkali facility has already been sent for disposal (stabilization followed by underground disposal) in Germany.

Mercury from the zinc smelter has also been sent for disposal (stabilization followed by underground disposal) in Germany.

Shipments of mercury waste for disposal in Germany have been notified and controlled according to Regulation (EC) No 1013/2006 on shipments of waste.

3.4. Does the party have excess mercury available from the decommissioning of chlor-alkali facilities?

☒ Yes

☐ No

If yes, please explain the measures taken to ensure that the excess mercury was disposed of in accordance with the guidelines for environmentally sound management referred to in paragraph 3 (a) of article 11 using operations that did not lead to recovery, recycling, reclamation, direct re-use or alternative uses.

Chlor-alkali production in which mercury is used as an electrode has been prohibited in the EU from 11 December 2017 (Regulation (EU) 2017/852 on mercury, Article 7(1) and part I of Annex III). Mercury from chlor-alkali industry shall be considered to be waste and disposed of without endangering human health or harming the environment, and such disposal shall not lead to any form of reclamation of mercury (Regulation (EU) 2017/852 on mercury, Article 11). During the reporting period there was one chlor-alkali facility using mercury process in Finland. This process was shut down in December 2017. In the end of the reporting period most of the mercury from this facility had already been sent for disposal (4,45 t still at the facility on 31.12.2020).

3.5. *Has the party received consent, or relied on a general notification of consent, in accordance with article 3, including any required certification from importing non-parties, for all exports of mercury from the party's territory in the reporting period?

☐ Yes, exports to parties

☐ Yes, exports to non-parties

☒ No

Additional information if needed

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3.6. Has the party allowed the import of mercury from a non-party?

☒ No

☐ Yes

☐ The importing party has relied on paragraph 7 of article 3

Part E – Additional comments on the article in free text if the party chooses to do so

The reason for selecting "No" in question 3.5. is the absence of exports.

▼ ART. 4: MERCURY-ADDED PRODUCTS

4.1. Has the party taken any appropriate measures to not allow the manufacture, import or export of mercury-added products listed in Part I of Annex A of the Convention after the phase-out date specified for those products?

- ☒ Yes
- ☐ No
- ☐ Yes (implementing paragraph 2 of article 4)

If yes, please provide information on the measures.

Article 5 of Regulation (EU) 2017/852 on mercury prohibits export, import and manufacturing of the mercury-added products set out in Annex II of the said Regulation. Products in Part I of Annex A of the Convention are covered by Annex II of the Regulation.

Finnish Customs supervises that the export and import ban of the mercury-added products is complied with. The Finnish Safety and Chemicals Agency supervises compliance with the ban concerning production of mercury-added products. (Finnish Chemicals Act 599/2013, Sections 13 & 8 – update of Chemicals Act which includes legislating on these supervisory roles entered into force on 1 September 2018.)

4.3. Has the party taken two or more measures for the mercury-added products listed in Part II of Annex A in accordance with the provisions set out therein?

- ☒ Yes
- ☐ No

If yes, please provide information on the measures.

i) Setting national objectives aiming at dental caries prevention and health promotion, thereby minimizing the need for dental restoration:

In Finland, everyone is entitled to public oral health care. We have national guidelines on dental caries prevention and health promotion (<https://www.kaypahoito.fi/en/ccs00105>, last updated on August 27, 2020). The DMF index (number of Decayed, Missing, and Filled Teeth) for 12-year-olds was only 0.9 in 2019.

ii) Setting national objectives aiming at minimizing its use:

In Finland, the national target is to phase out the use of amalgam by 2030, with a steady decline in use in the 2020s. Amalgam fillings accounted for less than 3 % of the fillings made in 2012 and less than 1 % of the fillings made in 2019. In 2021, according to a survey conducted by the Ministry of Social Affairs and Health, 86 % of dental practices did not use amalgam at all. Most dental practices that still used amalgam used it very rarely.

iii) Promoting the use of cost-effective and clinically effective mercury-free alternatives for dental restoration:

In Finland, a recommendation to restore severely damaged teeth with ceramic fillings and crowns is being prepared by the Service Selection Board (Palko) in November 2021. The task of the board is to give recommendations on which services belong to the range of health care services financed by public funds.

iv) Promoting research and development of quality mercury-free materials for dental restoration:

Finland, together with the other Nordic countries, funds the Nordic Institute of Dental Materials (NIOM). NIOM's main focus of research are biomaterials. Biomaterial research is done in collaboration with universities, institutes and public dental service in the Nordic countries.

v) Encouraging representative professional organizations and dental schools to educate and train dental professionals and students on the use of mercury-free dental restoration alternatives and on promoting best management practices: There are four dental schools in Finland. They all teach to prioritize the use of dental material other than amalgam. Safe removal of amalgam restorations and handling of amalgam waste are taught in all schools. In 2021, according to a survey conducted by the Ministry of Social Affairs and Health, in one of the four schools the making of amalgam restorations is still taught.

vi) Discouraging insurance policies and programmes that favour dental amalgam use over mercury-free dental restoration:

In Finland, there are no policies or programs that would favor dental amalgam use over mercury-free dental restoration.

vii) Encouraging insurance policies and programmes that favour the use of quality alternatives to dental amalgam for dental restoration:

In Finland, a composite restoration costs the patient the same as an amalgam restoration. Ceramic restorations are more expensive.

viii) Restricting the use of dental amalgam to its encapsulated form:

In Finland, dental amalgam has only been used in encapsulated form since January 2019.

ix) Promoting the use of best environmental practices in dental facilities to reduce releases of mercury and mercury compounds to water and land:

As of January 2021, all dental units in Finland must have amalgam separators with separation rate of at least 95 %. All dental amalgam waste is instructed to be separated from other waste and transported to a hazardous waste facility.

4.4. Has the party taken measures to prevent the incorporation into assembled products of mercury-added products whose manufacture, import and export are not allowed under article 4?

☒ Yes

☐ No

If yes, please provide information on the measures.

Export, import and manufacturing ban of mercury-added products (described under question 4.1) should prevent also their incorporation into assembled products.

4.5. Has the party discouraged the manufacture and the distribution in commerce of mercury-added products not covered by any known use in accordance with article 4, paragraph 6?

☒ Yes

☐ No

If yes, please provide information on the measures.

According to Article 8 of Regulation (EU) 2017/852 on mercury, economic operators shall not manufacture or place on the market mercury-added products that were not being manufactured prior to 1 January 2018 unless authorised to do so or allowed to do so under Directive 2011/65/EU ("RoHS directive"). The authorisation process according to Regulation (EU) 2017/852 on mercury includes assesment by both the Member State and the Commission.

No one has applied for a decision on authorization during the reporting period.

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ ART. 5: MANUFACTURING PROCESSES IN WHICH MERCURY OR MERCURY COMPOUNDS ARE USED

5.1. Are there facilities within the territory of the party that use mercury or mercury compounds for the processes listed in Annex B of the Minamata Convention in accordance with paragraph 5 of article 5 of the Convention?

☒ Yes

☐ No

☐ I do not know

If yes, please provide information on measures taken to address emissions and releases of mercury or mercury compounds from such facilities.

During the reporting period, one chlor-alkali facility using mercury has been operating in Finland. Use of mercury in chlor-alkali production has been prohibited in the EU from 11 December 2017 (see Regulation (EU) 2017/852, Article 7(1) & Annex III), and the facility in Finland shut down its mercury process before that date.

If available, please provide information on the number and type of facilities and the estimated annual amount of mercury or mercury compounds used in those facilities.

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Please provide information on how much mercury (in metric tons) is used in the processes listed in the two first entries of Part II of Annex B in the last year of the reporting period.

0 t, as the only process using mercury was shut down already in 2017.

5.2. Are measures in place to not allow the use of mercury or mercury compounds in manufacturing processes listed in Part I of Annex B after the phase-out date specified in that Annex for the individual process?

CHLOR-ALKALI PRODUCTION

- ☒ Yes
- ☐ No
- ☐ Not applicable (do not have these facilities)

If yes, please provide information on these measures.

Use of mercury in chlor-alkali production has been prohibited in the EU from 11 December 2017 (see Regulation (EU) 2017/852, Article 7(1) & Annex III).

ACETALDEHYDE PRODUCTION IN WHICH MERCURY OR MERCURY COMPOUNDS ARE USED AS A CATALYST

- ☐ Yes
- ☐ No
- ☒ Not applicable (do not have these facilities)

5.3. Are measures in place to restrict the use of mercury or mercury compounds in the processes listed in Part II of Annex B in accordance with the provisions set out therein?

VINYL CHLORIDE MONOMER PRODUCTION

- ☐ Yes
- ☐ No
- ☒ Not applicable (do not have these facilities)

SODIUM OR POTASSIUM METHYLATE OR ETHYLATE

- ☐ Yes
- ☐ No
- ☒ Not applicable (do not have these facilities)

PRODUCTION OF POLYURETHANE USING MERCURY-CONTAINING CATALYSTS

- ☐ Yes
- ☐ No
- ☒ Not applicable (do not have these facilities)

5.4. Is there any use of mercury or mercury compounds in a facility using the manufacturing processes listed in Annex B that did not exist prior to the date of entry into force of the Convention for the party?

☐ Yes

☒ No

5.5. Is there any facility that has been developed using any other manufacturing process in which mercury or mercury compounds are intentionally used that did not exist prior to the date of entry into force of the Convention?

☐ Yes

☒ No

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ **ART. 7: ARTISANAL AND SMALL-SCALE GOLD MINING**

7.1. Have steps been taken to reduce, and where feasible eliminate, the use of mercury and mercury compounds in, and the emissions and releases to the environment of mercury from, artisanal and small-scale gold mining and processing subject to article 7 within your territory?

☐ Yes

☐ No

☒ There is no artisanal and small-scale gold mining and processing subject to article 7 in which mercury amalgamation is used in the territory

7.2. Has the party determined and notified the secretariat that artisanal and small-scale gold mining and processing within its territory is more than insignificant?

☐ Yes

☒ No

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ **ART. 8: EMISSIONS**

8.1. Identify any Annex D source categories for which there are new sources of emissions of mercury or mercury compounds as defined in paragraph 2 (c) of article 8.

For each of those source categories describe the measures in place, including the effectiveness of such measures, to implement the requirements of paragraph 4 of article 8.

☐ Coal-fired power plants

☐ Coal-fired industrial boilers

☐ Smelting and roasting processes used in the production of non-ferrous metals

☐ Waste incineration facilities

☐ Cement clinker production facilities

Has the party required the use of best available techniques or best environmental practices (BAT/BEP) to control and where feasible reduce emissions for new sources no later than 5 years after the date of entry into force of the Convention for the party?

☒ Yes

☐ No

Attach relevant documentation

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8.2. Identify any Annex D source categories for which there are existing sources of emissions of mercury or mercury compounds as defined in paragraph 2 (e) of article 8.

For each of those source categories, select and provide details on the measures implemented under paragraph 5 of article 8 and explain the progress that these applied measures have achieved in reducing emissions over time in your territory:

▼ COAL-FIRED POWER PLANTS

- ☐ A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Use of BAT/BEP to control emissions from relevant sources
- ☐ Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- ☒ Alternative measures to reduce emissions from relevant sources

Measures

BAT reference document and BAT conclusions (Commission Implementation Decision (EU) 2017/1442) for large combustion plants can be found in
<https://eippcb.jrc.ec.europa.eu/reference/large-combustion-plants-0>

In addition, the use of coal as a fuel for the production of electricity or heat will be prohibited in Finland from 1 May 2029. (Act 416/2019)

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▼ COAL-FIRED INDUSTRIAL BOILERS

- ☐ A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Use of BAT/BEP to control emissions from relevant sources
- ☐ Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- ☐ Alternative measures to reduce emissions from relevant sources

Measures

BAT reference document and BAT conclusions (Commission Implementation Decision (EU) 2017/1442) for large combustion plants can be found in
<https://eippcb.jrc.ec.europa.eu/reference/large-combustion-plants-0>

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▼ SMELTING AND ROASTING PROCESSES USED IN THE PRODUCTION OF NON-FERROUS METALS

- ☐ A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Use of BAT/BEP to control emissions from relevant sources
- ☐ Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- ☐ Alternative measures to reduce emissions from relevant sources

Measures

BAT reference document and BAT conclusions (Commission Implementation Decision (EU) 2016/1032) for non-ferrous metal industries can be found in

<https://eippcb.jrc.ec.europa.eu/reference/non-ferrous-metals-industries-0>

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▼ WASTE INCINERATION FACILITIES

- ☐ A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Use of BAT/BEP to control emissions from relevant sources
- ☐ Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- ☐ Alternative measures to reduce emissions from relevant sources

Measures

BAT reference document and BAT conclusions (Commission Implementation Decision (EU) 2019/2010) for waste incineration can be found in

<https://eippcb.jrc.ec.europa.eu/reference/waste-incineration-0>

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▼ CEMENT CLINKER PRODUCTION FACILITIES

- ☐ A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- ☒ Use of BAT/BEP to control emissions from relevant sources
- ☐ Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- ☐ Alternative measures to reduce emissions from relevant sources

Measures

BAT reference document and BAT conclusions (Commission Implementation Decision 2013/163/EU) for production of cement, lime and magnesium oxide can be found in

<https://eippcb.jrc.ec.europa.eu/reference/production-cement-lime-and-magnesium-oxide>

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Have the measures for existing sources under paragraph 5 of article 8 been implemented no later than 10 years after the date of entry into force of the Convention for the party?

☒ Yes

☐ No

8.3. Has the party prepared an inventory of emissions from relevant sources within 5 years of entry into force of the Convention for it?

☒ Yes

☐ No

☐ Have not been a party for 5 years

If yes, when was the inventory last updated?

Mon, 02/15/2021 – 00:00

Please indicate where this inventory is available

Finnish air pollutant inventory to the CLRTAP covers also mercury emissions. This inventory is published on the webpage

[https://www.ymparisto.fi/en-](https://www.ymparisto.fi/en-US/Maps_and_statistics/Air_pollutant_emissions/Finnish_air_pollutant_inventory_to_the_CLRTAP)

[US/Maps_and_statistics/Air_pollutant_emissions/Finnish_air_pollutant_inventory_to_the_CLRTAP](https://www.ymparisto.fi/en-US/Maps_and_statistics/Air_pollutant_emissions/Finnish_air_pollutant_inventory_to_the_CLRTAP)

You can find information on emissions also on the page

https://www.ymparisto.fi/en-US/Maps_and_statistics/Air_pollutant_emissions

The inventory to the CLRTAP covers mercury emissions also from other sources than those listed in Annex D. For informative purposes, a separate calculation of mercury emissions from relevant sources in Annex D categories in 2019 has been made:

Coal-fired power plants: 39,5 kg

Coal-fired industrial boilers: 5,2 kg

Smelting and roasting processes used in the production of non-ferrous metals: 8,1 kg

Waste incineration facilities: 44,5 kg

Cement clinker production facilities: 30,3 kg

Annex D sources total: 127,6 kg

In 2019, relevant sources in Annex D categories were responsible for only about 22 % of Finland's mercury emissions to air, as the total mercury emission was 587 kg.

Attach

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8.4. Has the party chosen to establish criteria to identify relevant sources covered within a source category?

☐ Yes

☒ No

8.5. Has the party chosen to prepare a national plan setting out the measures to be taken to control emissions from relevant sources and its expected targets, goals and outcomes?

☐ Yes

☒ No

Part E – Additional comments on the article in free text if the party chooses to do so

Regarding new sources:

To our knowledge there are no new sources according to Article 8(2)(c) which would have started operating during the reporting period, but information on new sources (including construction dates of new facilities) is not gathered systematically. Requirements of Article 8(4) will however be fulfilled, as an environmental permit according to Finnish Environmental Protection Act (527/2014) is required for any new facility which is a relevant source listed in Annex D. Applying BAT is a key requirement for the granting of an environmental permit.

Emission data from both existing and new sources will end up to the emission inventory similarly, and inventories are always published with some delay (at the moment, inventory of 2019 is the latest).

▼ ART. 9: RELEASES

9.1. Are there, within the party's territory, relevant sources of releases as defined in paragraph 2 (b) of article 9?

- ☒ Yes
- ☐ No
- ☐ I do not know

Please indicate the measures taken to address releases from relevant sources and the effectiveness of those measures.

Relevant point sources of releases to water have been identified in Finland based on Water Framework Directive (WFD) inventory of emissions, discharges and losses required by Article 5(6) of the Environmental Quality Standards Directive 2008/105/EC. The identified point sources belong to the following potentially relevant point source categories listed in "Draft Guidance on the methodology for preparing inventories of releases pursuant to Article 9 of the Minamata Convention on Mercury":

5.1.1 Coal combustion in power plants (NB: Relevance of energy industry as significant point source for releases to water is to be reassessed in 2022.)

5.2.1 Mining, mineral processing, smelting and roasting of non-ferrous metals other than mercury

5.3.2 Pulp and paper production

5.4.1 Chlor-alkali production using mercury cell technology (NB: Use of mercury cell technology finished in 2017.)

5.9.5 Wastewater systems/treatment

Relevant point sources of releases to land have not been identified in Finland.

Measures taken to address releases from relevant sources include especially release limit values and use of best available techniques and best environmental practices.

9.2. Has the party established an inventory of releases from relevant sources within 5 years of entry into force of the convention for it?

- ☒ Yes
- ☐ Relevant sources do not exist in the territory
- ☐ Have not been a party for 5 years
- ☐ No

When was the inventory last updated?

2021-03-31

Please indicate where this inventory is available

Releases of mercury from relevant point sources to water in Finland are covered by EU Water Framework Directive (WFD) inventory of emissions, discharges and losses. The inventory report (in Finnish) is available on the webpage:

<https://www.ymparisto.fi/fi->

[FI/Vesi/Vesiensuojelu/Vesienhoidon_suunnittelu_ja_yhteisty/Suunnitteluopas/Vesiymparistolle_vaarallisten_ja_haitall\(48680\)](https://www.ymparisto.fi/fi-Vesi/Vesiensuojelu/Vesienhoidon_suunnittelu_ja_yhteisty/Suunnitteluopas/Vesiymparistolle_vaarallisten_ja_haitall(48680))

Part E – Additional comments on the article in free text if the party chooses to do so

Finland's EU Water Framework Directive (WFD) inventory of emissions, discharges and losses includes mercury release data from 2016. Although the inventory is updated only every 6th year, it is considered to be the primary source of information regarding Finland's mercury releases, as this data is both extensive and reliable: Data coverage on facilities releasing mercury is good, as all releases from Finnish national emission database have been searched without any

threshold, and the data has been compiled by the Finnish Environment Institute and checked by supervisory authorities (Centres for Economic Development, Transport and the Environment).

▼ ART. 10: ENVIRONMENTALLY SOUND INTERIM STORAGE OF MERCURY, OTHER THAN WASTE MERCURY

10.1. Has the party taken measures to ensure that the interim storage of non-waste mercury and mercury compounds intended for a use allowed to a party under the Convention is undertaken in an environmentally sound manner?

- ☒ Yes
☐ No
☐ I do not know

Please indicate the measures taken to ensure that such interim storage is undertaken in an environmentally sound manner and the effectiveness of those measures.

According to Article(3) of Regulation (EU) 2017/852, interim storage of mercury and of the mercury compounds (mercury (I) chloride, mercury (II) oxide, cinnabar ore, mercury sulfide, mercury (II) sulfate, mercury (II) nitrate) and mixtures of mercury (with mercury concentration of at least 95 % w/w) shall be carried out in an environmentally sound manner, in accordance with the thresholds and requirements set out in Directive 2012/18/EU of the European Parliament and of the Council and in Directive 2010/75/EU.

There are no known interim storages of non-waste mercury or mercury compounds in Finland.

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ ART. 11: MERCURY WASTES

11.1. Have measures outlined in article 11, paragraph 3, been implemented for the party's mercury waste?

- ☒ Yes
☐ No

Please describe the measures implemented pursuant to paragraph 3, and please also describe the effectiveness of those measures.

Finland has implemented all the requirements set in Article 11 para 3 of the Convention, partly by EU Regulation on Mercury (EU 2017/852) and partly by Finnish national waste and environmental legislation.

According to the EU Regulation on Mercury, all mercury and mercury compounds originating from chlor-alkali industry, cleaning of natural gas, non-ferrous mining and smelting operations or extraction from cinnabar ore shall be disposed of without endangering human health or harming the environment. Any type of recovery of these wastes is not permitted and the disposal operation shall not lead to any form of reclamation of mercury.

Metallic mercury shall be permanently disposed of in following permanent storage facilities licensed for disposal of hazardous waste:

- salt mines that are adapted for the permanent storage of mercury waste that underwent conversion, or deep underground hard rock formations providing a level of safety and confinement equivalent to or higher than that of such salt mines;
- above-ground facilities dedicated to and equipped for the permanent storage of mercury waste that underwent conversion and solidification and that provide a level of safety and confinement equivalent to or higher than the aforementioned salt mines or deep underground formations.

Metallic mercury may also be temporarily stored in liquid form provided that the specific requirements for the temporary storage of mercury waste set in EU Landfill Directive (1999/31/EC) are complied with. Temporary storage in liquid form is allowed only until 1 January 2023.

Besides aforementioned mercury wastes, the EU Regulation on Mercury covers also dental amalgam waste. The Regulation requires that dental practitioners ensure that their amalgam waste, including amalgam residues, particles

and fillings, and teeth, or parts thereof, contaminated by dental amalgam, is handled and collected by an authorised waste management establishment or undertaking. Dental practitioners shall not release directly or indirectly such amalgam waste into the environment under any circumstances.

Those mercury wastes that are not covered by the EU Regulation on Mercury are regulated by other EU waste legislation as well as Finnish waste and environmental legislation. These include for example EU Waste Directive (2008/98/EU), EU Landfill Directive (1999/31/EY) and EU Integrated Emissions Directive (75/2010/EU) as well as Finnish Environmental Protection Act (527/2014) and Environmental Protection Decree (713/2014), Waste Act (646/2011) and Waste Decree (978/2021), Landfill Decree (331/2013) and Waste Incineration Decree (151/2013).

According to the Finnish Environmental Protection Act, environmental permit is in most cases needed for treatment of waste, including mercury waste, on a professional basis or at an installation. An environmental permit may be granted for an activity that meets the requirements of the Environmental Protection Act and the Waste Act and the decrees issued under them. The permit authority shall set to the operation such permit conditions that the operation does not cause health hazards or environmental damage or pollution of soil and groundwater. The treatment facility shall apply the principles of best available technique and best environmental in its operation. The EU BAT reference documents (BREFs) shall be taken into account in the permit procedure. The Waste Incineration BREF

(<https://eippcb.jrc.ec.europa.eu/reference/waste-incineration-0>) and Waste Treatment BREF

(<https://eippcb.jrc.ec.europa.eu/reference/waste-treatment-0>) consider among other things techniques for limiting Hg emissions from various treatment processes for Hg containing wastes.

Binding Hg emission limit values to air and waterbodies from waste incineration and certain waste treatment operations have been set partly in EU BAT-conclusions and partly in national waste legislation. Additionally, binding Hg leaching limit values have been set for landfilling of mercury containing waste (other than metallic mercury) and for using certain waste materials for earth construction.

The export and import of mercury wastes is in conformity with Article 11 of the Minamata Convention and the Basel Convention. The requirements of the Basel Convention have been implemented in Finland by EU Waste Shipment Regulation (EU No. 1013/2006). According to it, all shipments of waste for final disposal need a waste shipment permit. Shipments of waste for final disposal are only permitted to other EU countries, countries that belong to the European Economic Area (EEA) and countries that belong to European Free Trade Association (EFTA). The shipment of metallic mercury as well as all mercury and mercury compounds originating from chlor-alkali industry, cleaning of natural gas, non-ferrous mining and smelting operations or extraction from cinnabar ore are always considered as shipments for final disposal.

Shipments of waste for recycling or recovery also need a permit, except wastes listed to Annex IX of the Basel Convention (B-list) and other non-hazardous wastes listed in Annexes III, IIIA and IIIB. Additionally, also shipments of waste listed in in Annexes III, IIIA and IIIB may require a notification to non-OECD countries if the non-OECD country in question has requested a notification procedure. Shipments of hazardous waste for recycling or recovery are only permitted to countries belonging to EU or OECD, in line with the Decisions II/2 and III/1 of the Basel Convention. These principles apply also to shipments of mercury wastes (other than metallic mercury and mercury and mercury compounds originating from chlor-alkali industry, cleaning of natural gas, non-ferrous mining and smelting operations or extraction from cinnabar ore).

Shipments to and from non-Basel countries are only allowed if Finland or EU has entered into a bilateral or multilateral agreement with that non-Basel country, and the bilateral or multilateral agreement is compatible with Community legislation and in accordance with Article 11 of the Basel Convention. Currently, the only bilateral or multilateral agreement in place between Finland and non-Basel countries and applicable to mercury wastes is the OECD Decision C(2001)107/Final of the OECD Council concerning the revision of Decision C(92)39/Final on control of transboundary movements of wastes destined for recovery operations. Shipments to and from OECD countries that are not parties to the Basel Convention for recovery operations follow the same rules as to other OECD countries, described above.

11.2. Are there facilities for final disposal of waste consisting of mercury or mercury compounds in the party's territory?

- ☐ Yes
- ☒ No
- ☐ I do not know

Part E – Additional comments on the article in free text if the party chooses to do so

{Empty}

▼ ART. 12: CONTAMINATED SITES

12.1. Has the party endeavoured to develop strategies for identifying and assessing sites contaminated by mercury or mercury compounds in its territory?

☒ Yes

☐ No

Please elaborate

In Finland, the regulatory policy on contaminated sites is based on national legislation, which sets generic provisions on the identification, investigation, assessment and remediation of contaminated sites, defining duties for both the liable parties and the authorities. In the legislation, a contaminated site refers to soil and groundwater that cause a harm or an unacceptable risk to human health or the environment. More specific provisions on the required duties are given in government decrees, which are further complemented by guidance documents, and a national risk management strategy for contaminated land. The same national, risk-based regulatory approach applies to all sites and contaminants, including mercury. Hence, there is no specific strategy targeted only at mercury or mercury compounds.

Finland has systematically identified, investigated and assessed potentially contaminated sites since 1989, and so far, over 6,000 sites have already been remediated. During this work, and based on additional recent surveys, mercury has not been identified as a significant contaminant in soil or groundwater. Instead, the biggest concern for environmental mercury is related to its elevated concentrations in fish of inland waters, and the consequent risks to human health due to fish consumption. Here, the historical contamination of inland water sediments is one of the origins of the concentrations in fish, alongside several diffuse and natural sources. However, based on extensive national monitoring, mercury concentrations in fish have been declining continuously during the past 50 years, particularly due to the dramatic reduction of local mercury emissions. The health risks caused by the current mercury concentrations in fish are mostly managed by specific dietary recommendations on fish consumption issued by the Finnish Food Authority.

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ ART. 13: FINANCIAL RESOURCES AND MECHANISM

13.1. Has the party undertaken to provide, within its capabilities, resources in respect of those national activities that are intended to implement the Convention in accordance with its national policies, priorities, plans and programmes?

☒ Yes

☐ No

Please specify

The national activities to implement the Convention are implemented as part of official duties in Ministry of the Environment, Ministry of Social Affairs and Health and several governmental institutions.

No information available on possible costs borne by the private sector in undertaking the required Convention obligations. In addition Finland intends to provide in the future financial resources to assist developing-country parties and/or parties with economies in transition in the implementation of the Convention through the Special Programme to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm Conventions, the Minamata convention and the Strategic Approach to International Chemicals Management (SAICM).

Please provide comments, if any.

{Empty}

13.2. Supplemental: Has the party, within its capabilities, contributed to the mechanism referred to in paragraph 5 of article 13?

☒ Yes

☐ No

Please specify

Finland has contributed to the financial mechanism via its funding to the Global Environment Facility during each year of the reporting period. During GEF-6, Finland's total contribution to the GEF was 65 MUSD and during GEF-7 26 MUSD.

Please provide comments, if any.

{Empty}

13.3. Supplemental: Has the party provided financial resources to assist developing-country parties and/or parties with economies in transition in the implementation of the Convention through other bilateral, regional and multilateral sources or channels?

☐ Yes

☒ No

Please specify

Finland's contribution to assist developing-country parties and/or parties with economies in transition in the implementation of the Convention is channeled through the financial mechanism. Also in the future, the intention is to channel the support for the Convention via the financial mechanism of the Convention.

Please provide comments, if any.

{Empty}

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ ART. 14: CAPACITY-BUILDING, TECHNICAL ASSISTANCE AND TECHNOLOGY TRANSFER

14.1. Has the party cooperated to provide capacity-building or technical assistance, pursuant to article 14, to another party to the Convention?

☐ Yes

☒ No

Please specify

Finland does not have bilateral cooperation to provide capacity-building and technical assistance to support the implementation of the Convention.

14.2. Supplemental: Has the party received capacity-building or technical assistance pursuant to article 14?

☐ Yes

☒ No

Please specify

Finland has not sought capacity-building or technical assistance from another party.

Please provide comments, if any.

{Empty}

14.3. Has the party promoted and facilitated the development, transfer and diffusion of and access to, up-to-date environmentally sound alternative technologies?

☐ Yes

☒ No

☐ Other

Please specify

No plan to undertake these activities.

No information available on the possible activities by private sector.

Part E – Additional comments on the article in free text if the party chooses to do so

{Empty}

▼ ART. 16: HEALTH ASPECTS

16.1. Have measures been taken to provide information to the public on exposure to mercury in accordance with paragraph 1 of article 16?

☒ Yes

☐ No

Supplemental: If yes, describe the measures that have been taken.

Finnish Food Authority Evira has issued exceptions to the general dietary advice on fish consumption based on contaminant levels (including mercury), see

<https://www.ruokavirasto.fi/en/private-persons/information-on-food/instructions-for-safe-use-of-foodstuffs/safe-use-of-foodstuffs/safe-use-of-fish/>

16.2. Have any other measures been taken to protect human health in accordance with article 16?

☒ Yes

☐ No

Supplemental: If yes, describe the measures that have been taken.

The Ministry of Social Affairs and Health has confirmed a list of concentrations of impurities (including mercury and its inorganic compounds and alkyl compounds of mercury) in workplace air known to be harmful (HTP values) and a list of corresponding indicative limit values for biological exposure indicators. The values are intended to be taken into account when assessing the quality of workplace air, employees' exposure and the significance of measurement results. The lists are enclosed as Annexes 1 and 2 to the publication (in Finnish, abstract in English)

<https://julkaisut.valtioneuvosto.fi/handle/10024/162457>

Employer has an obligation to take the limit values into account when assessing the exposure, and to perform measurements when necessary. If exposure to mercury occurs at the workplace, biomonitoring of mercury is part of occupational health monitoring performed by occupational health care, based on Occupational Health Care Act (1383/2001).

Part E – Additional comments on the article in free text if the party chooses to do so

{Empty}

▼ ART. 17: INFORMATION EXCHANGE

17.1. Has the party facilitated the exchange of information referred to in article 17, paragraph 1?

☒ Yes

☐ No

Please provide more information, if any

Several Finnish institutions participated in assessment of mercury in the Arctic under Arctic Monitoring & Assessment Program (AMAP), see

<https://mercury.amap.no/>

Part E – Additional comments on the article in free text if the party chooses to do so

{Empty}

▼ ART. 18: PUBLIC INFORMATION, AWARENESS AND EDUCATION

18.1. Have measures been taken to promote and facilitate the provision to the public of the kinds of information listed in article 18, paragraph 1?

☒ Yes

☐ No

If yes, please indicate the measures that have been taken and the effectiveness of those measures

Finnish institute for health and welfare provides on its websites information to the public on for example health effects of mercury, mercury in the environment, exposure to mercury and ways to reduce exposure to mercury:

<https://thl.fi/en/web/environmental-health/environmental-pollutants>

<https://thl.fi/fi/web/ymparistoterveys/ymparistomyrkyt/elohopea> (in Finnish only)

Finnish Food Authority provides information on mercury to both consumers and companies. On their websites there are for example guidance related to safe consumption of food products and information on how to avoid exposure to mercury (like recommendation on consumption of fish). Also risk assessments on the dietary heavy metal (including mercury) exposure of Finnish adults and children are available (in Finnish, abstracts in English).

<https://www.ruokavirasto.fi/en/companies/food-sector/production/common-requirements-for-composition/contaminants/metals-in-foods/kvicksilver/>

Finnish Safety and Chemicals Agency provides information on mercury and related legislation:

<https://tukes.fi/en/chemicals/mercury>

Webpages of environmental administration provide information on mercury in the environment, for example on emissions and releases – see questions 8.3 and 9.2.

Information on emissions and releases at the facility level in Finland is also provided (in Finnish, Swedish and English) in <https://prtr.fi/>

This data is retrieved from PRTR (Pollutant Release and Transfer Register) maintained by the European Environment Agency. It should be noted that the coverage of this data is not as good as in the inventories due to application of thresholds.

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ ART. 19: RESEARCH, DEVELOPMENT AND MONITORING

19.1. Has the party undertaken any research, development and monitoring in accordance with paragraph 1 of article 19?

☒ Yes

☐ No

If yes, please describe these actions

Levels of mercury in Finnish fish were studied in a research project "EU-kalat III" by several Finnish institutions in 2016–2018. The project complemented the results gained in earlier research projects in 2001–2002 and 2009–2010. The publication "Changes in the levels of environmental contaminants of Finnish wild caught fish" is available (in Finnish, abstract in English) in

<https://julkaisut.valtioneuvosto.fi/handle/10024/161079>

Finnish data to the AMAP assessment of mercury in the Arctic was produced in a project "Environmental and human exposure to mercury in the Arctic" by several Finnish institutions in 2019–2021. The project investigated long-term

changes in the mercury load, accumulation in biota and human food, the amount of human exposure in Lapland and the differences in exposure across the country.

In Finland atmospheric mercury concentration is measured continuously at three measurement stations. Mercury deposition is measured at four measurement stations. These measurements in background area are required by Government Decree (113/2017) on arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ COMMENTS

Part C: Comments regarding possible challenges in meeting the objectives of the Convention (Art. 21, para. 1)

{Empty}

▼ SUPPLEMENTAL – ADDITIONAL COMMENTS

Supplemental: Part D: Comments regarding the reporting format and possible improvements, if any

According to the draft guidance on reporting, if the reply to question 7.1 is "there is no...", the next question to be answered is 7.5. However, it seems that the reporting tool does not allow leaving 7.2 empty.