

FIRST FULL NATIONAL REPORTS OF THE MINAMATA CONVENTION ON MERCURY 2021



REPORTING PERIOD:

16 August 2017 to 31 December 2020

▼ INFORMATION ON THE PARTY

1. Information on the party

Name of party

Thailand

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

22 June 2017

Date of entry into force of the Convention for the party

20 September 2017

2. Information on the national focal point

Full name of the institution

Pollution Control Department , Ministry of Natural Resources and Environment

Title of National Focal Point

Mr.

Name of National Focal Point

Athapol Charoenshunsa

Mailing address

Pollution Control Department

Ministry of Natural Resources and Environment

92 Soi Phahon Yothin 7, Phahon Yothin Road, Phayathai Bangkok 10400 Thailand

Telephone number

+662 298 2121

Fax number

+662 298 5376

E-mail

athapol.c@pcd.go.th

Second E-mail

chem@pcd.go.th

Web page

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3. Information about the contact officer submitting the reporting format if different from the above

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

Full name of the institution

Waste and Hazardous Substances Management Division, Pollution Control Department, Ministry of Natural Resources and Environment

Title of contact officer

Mr.

Name of contact officer

Vuttichai Kaewkrajang

Mailing address

Waste and Hazardous Substances Management Division
Pollution Control Department
Ministry of Natural Resources and Environment
92 Soi Phahon Yothin 7, Phahon Yothin Road, Phayathai Bangkok 10400 Thailand

Telephone number

+662 298 2430

Fax number

+662 298 5393

E-mail

chem@pcd.go.th

Second E-mail

kaewkrav@hotmail.com

Web page

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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

There is no either primary mercury mines or economy of scale of mercury deposit in Thailand.

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

ba34_subsection

*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.

– According to information on 15 Nov 2021 obtaining from related companies/factories of supply generating stocks and individual stocks of mercury during 2017 – 2021, there were 2 recycling factories generated mercury in forms of by-products exceeding 10 metric tons per year and 1 individual stock of mercury or mercury compounds exceeding 50 metric tons as in Attachment A.

– Notification of the Ministry of Industry on reporting the facts of producer, importer, exporter or person having in possession of that hazardous substance under the responsibility of the Department of Industrial Works (No. 2) B.E.2563 (2020) has announced to develop a mechanism for reporting supply generating stocks and individual stocks of mercury. This notification enforce producer, importer, exporter or person in possession of the hazardous substance including mercury and mercury compounds under the Minamata Convention on Mercury exceeding 100 kg to report quantity, production, import, export or in possession, sale, used or distributed with name, identification number of purchaser and purpose of use to competent officer every 6 months. It will be useful for reporting under Article 21 of the Minamata Convention in the next round.

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

- THA_3.3.pdf

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

{Empty}

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

☐ Yes

☒ No

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

ba35_subsection

If yes, a. and the party has submitted copies of the consent forms to the secretariat, then no further information is needed. If the party has not previously provided such copies, it is recommended that it do so.

a. and the party has submitted copies of the consent forms to the secretariat, then no further information is needed.

- [THA_3.5.pdf](#)

Otherwise, please provide other suitable information showing that the relevant requirements of paragraph 6 of article 3 have been met.

According to information about mercury exports during August 2017 – October 2021, Thailand has exported mercury to the Parties and non-Parties by obtaining written consent from an importing country as in Attachment B.

Supplemental: please provide information on the use of the exported mercury.

{Empty}

Kindly attach all relevant information

{Empty}

b. If exports were based on a general notification in accordance with article 3, paragraph 7, please indicate, if available, the total amount exported and any relevant terms or conditions in the general notification related to use.

{Empty}

Relevant terms or conditions in the general notification related to use

{Empty}

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

ba36_subsection

If the party has not previously provided such copies, it is recommended that it do so.

- [THA_3.6.pdf](#)

Otherwise, please provide other suitable information showing that the relevant requirements of paragraph 8 of article 3 have been met.

Thailand, as a Party of the Minamata Convention, allows importing mercury from non-Parties by using a general notification (Form D) with a one-time notification to the Secretariat following Article 3 paragraph 6 and paragraph 7 of the Convention. It is include notifying the decision according to provisions in paragraph 8 and paragraph 9 that Thailand has no request a certificate from non-Party to identify sources which obtain from unpermitted source. According to information in October 2021 on imports of mercury and mercury compounds during 2017 – 2021, Thailand has internal measures to ensure that imported mercury and mercury compounds are handled in an environmental manner as in Attachment C.

Supplemental: Please provide information on the quantities and countries of origin.

{Empty}

If yes, or if the party relied on paragraph 7 of article 3, did the non-party provide certification that the mercury is not from sources identified under paragraph 3 or paragraph 5 (b) of article 3?

- ☐ Yes

☐ No

☒ The party has submitted its general notification of consent, applied paragraph 9 of article 3, and provided information on the quantities and countries of origin.

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

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▼ 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.

Although Thailand registered for some exemptions from the phase-out date of mercury-added products listed in Annex A under Article 6 along with the accession instrument. Thailand has also implemented appropriate measures to control manufacture, import and export of these products in accordance with obligations of the Minamata Convention in Article 4 as follows

Although Thailand registered for some exemptions from the phase-out date of mercury-added products listed in Annex A under Article 6 along with the accession instrument. Thailand has also implemented appropriate measures to control manufacture, import and export of these products in accordance with obligations of the Minamata Convention in Article 4 as follows:

1. Established “A Legal Working Group to Support the Obligations of the Minamata Convention” which consists of important organizations relating to manufacture, import and export of mercury-added products responding for advising and recommending national actions to comply with the Minamata Convention for “The Sub-Committee on the Minamata Convention on Mercury” under “The National Environment Board”.

2. Revised industrial standard TIS 2368-2551(2008) on electrical equipment that may contain hazardous substances, restriction of the use of certain hazardous substances by publishing TIS 2368-2564 (2021) requiring new electrical and electronic equipment to be mercury free as well as other harmful substances with the exception of some mercury-added products under the Minamata Convention.

3. Conducted market surveillance of cosmetic products for skin whitening, to screen for banned mercury by revised Ministry of Public Health Notification on determination of substances prohibited to use as ingredients in cosmetic production, the latest edition of 2016 as of 22 April 2016 also includes Mercury (CAS No. 7439-97-6) and its compounds in the list of substances prohibited in cosmetic products, with the exception of its contamination in products not exceeding 1 ppm.

4. Enforced the registration, production and import of mercury and mercury compounds according to hazardous substance Act which is permitted uses only for purposes permitted under the Minamata Convention including not allowed to use in the list of mercury-added products in Part 1 of Annex A after the date of the Convention determined the phase-out date, except for some products that Thailand requested for exemptions until 31 December 2025.

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.

At present, Thailand has implemented 4 measures to reduce the use of amalgam as follows:

- 1st Measurement : Setting the national policy aiming at dental caries prevention and health promotion, thereby minimizing the need for dental restoration.

- 3rd measurement:

- o Encourage the use of mercury-free materials in the restoration of deciduous teeth.

- o Support the budget for organizing oral health services as a specific item (fee schedule), such as apply topical fluoride for at-risk children and permanent molar sealant in school children aged 4–12 years to minimize the need for dental restoration from tooth decay.

- 5th Measurement: Cancel the professional registration exam in operative dentistry with amalgam fillings in pediatric patients.

- 8th Measurement: Prohibit production, import and export of amalgam tablet in Thailand.

In response to the suggested 8th measurement of Annex B in Part II regarding phase-down measures for dental amalgam, we drafted Ministry of Public Health Notification to restrict the availability of dental amalgam; allowing just the encapsulated form. The public hearing was conducted to seek comments regarding the (draft) ministerial notification. At present, we are collecting and analyzing the comments for considering by the Subcommittee and Committee on Medical Device respectively.

Moreover, Thailand plans to increase the implementation policy under the 3rd measurement and increase the implementation of the 9th measurement from 2022 onwards as follows:

- 3rd measurement: Setting the policy aiming at amalgam restoration reduction in pregnant women, lactating women and children under 6 years old.

- 9th measurement: Promote the use of infectious waste management practices and mercury-contaminated waste from dental clinics to reduce the release of mercury and mercury compounds into water and soil.

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

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 no, has there been an assessment of the risks and benefits of the product that demonstrates environmental or health benefits? Has the party provided to the secretariat, as appropriate, information on any such product?

☐ Yes

☒ No

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

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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

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)

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

If yes, please provide information on the steps.

The Notification of the Ministry of Industry on November 1st, 2017 prescribed that the use of any chemical substances, including mercury and mercury compounds, is prohibited in mineral panning.

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 power plants

- In a process of adding mercury to be a component of emission standards in coal-fired power plants.
- Coal-fired power plant is in a scope to perform preparing Environmental Impact Assessment (EIA), which is required using of Best Available Control Technology (BACT) to control mercury emissions. This plant must be measurements and reports of mercury emissions from stack to authorization agencies.

☒ Coal-fired industrial boilers

Coal-fired industrial boilers

- Established industrial emission control standards in 2006 to control mercury emissions from sources of pollution with/ without fuel combustion.
- Industrial plants with/ without fuel burning are partly in a scope to perform preparing Environmental Impact Assessment (EIA), which is required using of Best Available Control Technology (BACT) to control mercury emissions. This plant must be measurements and reports of mercury emissions from stack to authorization agencies

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

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

- Established industrial emission control standards in 2006 to control mercury emissions from sources of pollution with/ without fuel combustion.
- Industrial plants with/ without fuel burning are partly in a scope to perform preparing Environmental Impact Assessment (EIA), which is required using of Best Available Control Technology (BACT) to control mercury emissions. This plant must be measurements and reports of mercury emissions from stack to authorization agencies

☒ Waste incineration facilities

Waste incineration facilities

1. Thailand has regulations in place to control mercury emission from industrial hazardous waste incinerators, infectious waste incinerators, and solid waste incinerator with not exceeding to 0.1, 0.05, and 0.05 mg/m³, respectively.
2. Industrial hazardous waste incinerator is one of source categories required to perform the environmental impact assessment. It is recommended to install Multi-APC devices and apply BAT/BEP as mitigation measures to control mercury emission. The monitoring report must be submitted to relevant organizations.

☒ Cement clinker production facilities

Cement clinker production facilities

1. Thailand has a regulation to specifically control mercury emission from co-firing hazardous waste in cement kilns with not exceeding 0.1 mg/m³ but not to control mercury emission from general cement Kilns.
2. However, this source category must be required to perform the environmental impact assessment. It is recommended to install Multi-APC devices and apply BAT/BEP as mitigation measures to control mercury emission. The monitoring report must be regularly submitted to relevant organizations.

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

{Empty}

Progress

{Empty}

▼ 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

Thailand has set the standards for mercury emissions from various sources under the Factory Act, B.E. 2535 (1992) and the Enhancement and Conservation of the National Environmental Quality Act B.E. 2535 (1992) as follows:

- 1) The incinerations of wastes or unused hazardous materials from industries, the value of the emitted mercury is not exceeding 0.1 mg/m³
- 2) The incineration of infectious waste, the value of the emitted mercury is not exceeding 0.05 mg/m³
- 3) The waste incinerations with burning capacity of 1 ton but not exceeding 50 tons per day and more than 50 tons per day, the value of the emitted mercury is not exceeding 0.05 mg/m³
- 4) The cement production facilities that use waste as fuel as raw materials for production, the value of the emitted mercury is not exceeding 0.1 mg/m³
- 5) The general production plants with the fuel burning, the value of the emitted mercury is not exceeding 2.4 mg/m³
- 6) The general production plants without the fuel burning, the value of the emitted mercury is not exceeding 3.0 mg/m³
- 7) The plants that use the used fuel undergone synthetic fuel quality improvement processes in the industrial furnaces, the value of the emitted mercury is not exceeding 0.15 mg/m³
- 8) The gas separation plant, the value of the emitted mercury is not exceeding 0.8 mg/m³
- 9) The furnace and/ or boiler and/ or cracking unit without the use of the unrestored catalyst or the catalyst in the cracking unit and the cracking with coke combustion in the petroleum refinery, the value of the emitted mercury is not exceeding 2.4 mg/m³

Progress

Thailand has developed a fundamental mercury emission directory and in the process to update potential sources of emitted mercury to define control measures in reduction of mercury emission in addition to emitted mercury sources mentioned in the Annex D under GEF-7.

▼ 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

{Empty}

Progress

{Empty}

▼ 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

{Empty}

Progress

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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

{Empty}

Progress

{Empty}

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

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

If yes, has the party submitted its national plan to the Conference of the Parties under this article no later than 4 years after the date of entry into force of the Convention for the party?

☐ Yes

☒ No

Please explain

Thailand is in the process of requesting for support from GEF-7 under the project entitled "Advanced Minamata Assessment in Thailand" for updating national inventory and formulating national implementation plan according to Article 20 as well as national plans for Article 8 and 9 of the Convention.

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

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▼ 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.

Thailand has set the standards for mercury releases from various sources under the Factory Act, B.E.2535 (1992) and the Enhancement and Conservation of the National Environmental Quality Act B.E. 2535 (1992). For the sources in the Industrial Factories and Industrial Estates, the value of the released mercury is not exceeding 0.005 mg/m3.

Thailand has developed a fundamental mercury releasing directory and in the process to update information for classification of significant releasing sources to define control measures in reduction of mercury release under GEF-7.

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

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

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▼ 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.

Thailand has defined mercury and some mercury compounds as the hazardous substances under the Hazardous Substances Act, B.E 2535 (1992). Therefore, their storages must be operated accordance with the Manual on the Storages of Chemicals and Hazardous Substances under the Notification of the Department of Industrial Works B.E. 2550 (2007) issued pursuant to the Factory Act, B.E. 2535 (1992)

or operated according to the international guidelines approved by the Department of Industrial Works for safety in handling and storing of chemicals and hazardous substances of entrepreneurs.

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.

Industrial waste

– Supervision mercury waste according to the Notification of the Ministry of Industry on Disposal of Waste or Non-usable Materials B.E. 2548 (2005) that has defined waste contaminated mercury or mercury compounds in the hazardous inorganic substances and organic substances: equal to or greater than 20 mg/kg . Thus, management and disposal of such waste must comply with established rules and procedures.

– Mercury waste is the 3rd Category of hazardous substances, production, import, export, or possession of this waste must be licensed according to the Notification of the Ministry of Industry

Waste from petroleum industry

– Petroleum concessionaire requires taking necessary measures to control waste, sewage or unused chemical materials from petroleum operations; to prevent damage to the environment property of the state or people. In addition, the concessionaire complies with the legal requirements of the relevant

agencies and must operate in accordance with the waste management plan announced by the Department of Mineral Fuels and other relevant laws.

– In case of exporting mercury waste by the Basel Convention, the concessionaire must have written consent that is notified by Department of Industry Works as the competent authority of Thailand. Then, the concessionaire need to report volume of waste managed by month and year to Department of Mineral Fuels.

Waste from public health sectors

– Preparation for the development of a database of medical mercury waste in order to know the amount of medical mercury waste generated from health care facilities.

– Preparation for the development to define antibiotics, medical device waste and amalgam that contains mercury is hazardous waste. To ensure that medical mercury waste is managed in an environmentally and reduce the impacts on health.

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

If yes, if the information is available, how much waste consisting of mercury or mercury compounds has been subjected to final disposal under the reporting period? Please specify the method of the final disposal operation/operations.

Thailand has mercury waste disposal facilities. There is a report on quantity and waste disposal methods for waste consisting of, containing or contaminated with mercury during 2017 – 2021. It was classified according to types of waste/ disposal codes. Disposal facilities have issued annual reports to the Ministry of Industry in accordance with the requirements of the Notification of the Ministry of Industry on the Disposal of Waste or Unused Materials B.E. 2548 (2005).

For health care facilities, medical mercury waste has managed by collecting and sending to disposal unit which will be mostly disposed by industrial incinerators.

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

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▼ 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

Thailand is developing Guideline on Preliminary Assessment of Contaminated Sites to provide harmonized approach by conducting an initial assessment of contaminated sites for related government and private agencies.

For industrial sector, we have a mechanism to supervise and manage mercury contaminated areas in factory areas according to the Ministerial Regulation on Soil and Groundwater Contamination Control in the Factory B.E. 2559 (2016) issued under the Factory Act B.E. 2535 (1992). Contamination of hazardous substances or mercury in soil and groundwater within factory areas shall not exceed contamination criteria. It is include soil and groundwater quality monitoring report in accordance with the risk assessment principles. If the contamination exceeds specified thresholds, entrepreneurs must prepare a plan and take action to reduce contamination to not exceed specified criteria and then report after no more than 180 days. For, inspection in soil, it should carry out every 3 years and every 1 year is for groundwater inspection.

Moreover, Ministry of Energy issued the Ministerial Regulation Prescribing Criteria and Methods for Petroleum Exploration, Production, and Conservation, B.E. 2555 (2012) that requires the petroleum concessionaire of Thailand to inject all water from the production process back to reservoir in order to prevent damage to the environment.

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

Thailand has allocated annual government statement of expenditure for the implementation of the policies, priorities, plans and programmes under the Minamata Convention, for example

- Organizing meetings to prepare and educate mercury management along with relevant manuals
- Organizing a public hearing to ask opinions on draft regulations revised in accordance with obligations of the Minamata Convention
- Scientific sampling cost to be used in the setting of mercury standards
- Laboratory Mercury Analysis Instruments

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

no

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

no

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

Presentation on knowledge of accession to the Minamata Convention especially legal operations of Thailand in accordance with provisions of the Minamata Convention to representatives of relevant government agencies of the Lao People's Democratic Republic as requested by the United Nations Research and Training Institute (UNITAR) under the project entitled "The Ratification and Early Implementation of the Minamata Convention on Mercury in Lao People's Democratic Republic 2018" on July 5, 2018 at the Pollution Control Department, Vientiane Lao People's Democratic Republic.

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

☒ Yes

☐ No

Please specify

Capacity-building on the sampling and analysis of mercury in wet deposition at National Central University (NCU), Taiwan

Remark:

We obtained knowledge and experience on actual sampling analysis and QA/QC

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

Study on atmospheric mercury distribution and contamination from an integrated e-waste disposal site (2018)

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.

Thailand has some measures to provide information to the public on exposure to mercury in accordance with paragraph 1 of article 16 as follows:

1. Develop guidelines for disease control as follows:

- 1) Development of knowledge for surveillance, prevention, and control of the disease caused by mercury
 - 2) Development of guideline for health surveillance, disease investigation on mercury poisoning, including laboratory study on mercury analysis
 - 3) Establishment of reporting system and data dashboard for disease caused by mercury poisoning
2. Develop guidelines to increase knowledge about the impact of mercury on health, the environment and environmentally sound medical mercury waste management such as
- Guidelines for the management of chemical medical waste
 - Synopsis of clinical practice guidelines for mercury safety management
 - Inform knowledge of the Minamata Convention on Mercury and the impact of mercury on health and the environment for dental personnel and patient

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.

Thailand has some measures to protect human health in accordance with article 16 (Para. 1.) for example:

1. Develop a guideline for mercury poisoning surveillance and build capacity for researchers and stakeholder meeting to brainstorm and discuss on knowledge, technology and innovation for mercury diagnosis, screening and surveillance.
2. Analyze in blood, urine, food, water and cosmetic samples to monitor mercury contamination

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

{Empty}

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

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▼ 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

Thailand has measures to promote and facilitate the provision to the public of the kinds of information listed in article 18, paragraph 1 as follows

1. Disseminate data and information relating to disease caused by mercury, such as health effects, reference values for mercury, etc. on the website
2. Disseminate "The Monitoring Project for the Impact of Petroleum Operations" to the public via the TV programme in 2019. As seen, surveillance results in the past found that average mercury content in seawater and benthic fish tissues was within the standard range according to the National Environment Board's announcement dated 13 October 2017 on the determination of sea water quality standards and the Notification of the Ministry of Public Health (No. 414) B.E. 2563 (2020) issued under the Food Act B.E. 2522 (1979) dated 20 March 2020, regarding food standards with contaminants, respectively. In addition, info graphics were prepared to show details and results of aforementioned projects and distributed to the Provincial Energy Office in the relevant areas.
3. Consider permission to dump or drain water into public waterways as sources of pollution require permission and quality must be controlled according to the standards. The standards and regulations for considering such permits also control the maximum amount of mercury from the source of pollution that can be released into the environment. Moreover, Monitor water quality information is publicly available and can be accessed on the website.
4. Determine the rates of expenses for the inspection of industrial products on Electrical and Electronic Equipment that may contain Hazardous Substances: Restriction of the Use of Certain Hazardous Substances.

5. Disseminate the Report on Contamination of Mercury, VOCs and PAHs from electronics waste and municipal solid waste In Buriram Province (2019 – 2020)
6. Provide information and advice continuously to entrepreneurs regarding to fulfillment of the obligations of the Minamata Convention using “Guidelines and consideration procedures relating to the registration, production, import, export or possession of mercury and mercury compounds under the Minamata Convention”. It is available to officials, operators and the public via website.

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

{Empty}

▼ 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

Thailand has undertaken research, development and monitoring in accordance with paragraph 1 of article 19 as follows:

1. Research on mercury reference level among people living in the high-risk area
2. Establish the new method for mercury analysis
3. Establish mercury surveillance to follow up on people who might be exposed to mercury during the chemical accident
4. Establish a project to investigate heavy metal contamination in food entitled “ASEAN Food Reference Laboratory Development Project: Heavy Metal” to join the heavy metals blood and urine analysis proficiency scheme and also “ASEAN Cosmetics Reference Laboratory (ACRL)” for testing the content of heavy metals (arsenic, cadmium, lead and mercury) in cosmetic products.
5. Establish “Effect Monitoring Project from Petroleum Industry” since 2003. Mercury content has been monitored in seawater samples and benthic fish tissues in marine petroleum operation areas. According to the results of past surveillance, it was found that the average mercury content in seawater and benthic fish tissue was within the standard range according to the National Environment Board's announcement dated 13 October 2017, titled defining seawater quality standards and the Notification of the Ministry of Public Health (No. 414) B.E. 2563 (2020) issued under the Food Act B.E. 2522 (1979) dated 20 March 2020 regarding food standards with contaminants, respectively. Moreover, concessionaire has prepared and implemented “Environmental Quality Monitoring Plan (Monitor)” in accordance with predetermined conditions in the Environmental Impact Assessment Report (EIA) of the Petroleum Exploration and Production Project and the Environmental Quality Monitoring Plan after demolition activities (Post Decommissioning Activity Plan) according to the Notification of the Department of Mineral Fuels on Criteria, Methods and Conditions for preparing reports and plans according to Demolition Environmental Management Plan B.E. 2561 (2018)
6. Monitor water quality information that is regularly published on the website.
7. Research on development of appropriate and effective measurement methods of mercury in ambient air and in wet deposition for Thailand (2017)

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)

Thailand proposes that

1. It should be integration between relevant networks both domestically and internationally to jointly develop mercury-related safety measures, legal mechanisms and law enforcement.
2. For the implementation of import-export measure under Article 4, it is essential to identify customs code to distinguish non-mercury added products and mercury added products listed in Annex A which need cooperation and further discussion among expert teams and parties.

▼ SUPPLEMENTAL – ADDITIONAL COMMENTS

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

no