

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

Norway

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

12 May 2017

Date of entry into force of the Convention for the party

16 August 2017

2. Information on the national focal point

Full name of the institution

Norwegian Environment Agency

Title of National Focal Point

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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

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.

Norway has conducted a systematic endeavour 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.

To determine if these stocks exist, we followed the guidance document and attempted to identify entities that could hold such stocks:

1. In determining the levels of mercury stocks at any given time, initial actions will rely on the identification of entities that may store or use mercury and related facilities. Such entities and facilities might include:

- (a) Mercury traders that buy and sell, including through imports and exports, mercury or mercury compounds and may have varying amounts on hand at any time;
- (b) Primary mercury mines, which may have stocks of mercury awaiting sale and therefore may have large quantities on hand at certain times, depending on demand;
- (c) Other facilities or activities – for instance recycling – that produce mercury or mercury compounds, including mercury waste treatment facilities, which may also have large stocks on hand, depending on the overall mercury demand or on whether mercury is held pending a final decision on whether it is destined for disposal;
- (d) National Governments, which may have stocks of mercury on hand resulting from the seizure of mercury and from authorized uses such as military storage;
- (e) Production facilities for mercury-added products or facilities that use processes that use mercury or mercury compounds, which may also maintain significant stocks of mercury depending on the supply chain and current demand.

Norway does not have entities that fall in category (b) or (e). Regarding category (a) entities (mercury traders) the imported amounts based on the import permits (also reported to the Minamata secretariat, under article 3, paragraph 6 obligations) are counted in kilograms, not tons. The intended usages fall into the categories of laboratory scale research and usage in product categories (b) and (c) of Annex A. Regarding category (c) entities, Norway only has facilities for waste treatment and non-ferrous metal industry. All stocks generated from them are destined for final disposal and are therefore categorized

as waste under article 11 (and excluded from Article 3 reporting obligations). These facilities do not recycle mercury. The possibility of individual stocks exceeding 50 metric tons was therefore excluded. Furthermore, Norway does not have any of the supply sources that could generate stocks exceeding 10 metric tons within its territory (including mercury mining and manufacturing processes in which mercury or mercury compounds are used).

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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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

Additional information if needed

{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

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.

Mercury is included in the Norwegian authorities' priority list of environmental contaminants and has been since the list was established in 1997. The list is a tool for national authorities when prioritizing what substances/groups of substances to focus on when taking measures to eliminate or reduce their presence in the environment.

None of the mercury added products in Part I of Annex A of the Convention is permitted for manufacture, import or export in Norway, and they were not permitted before the phase-out date either. There have been several measures in place to ban mercury added product for a long time in Norway, most importantly:

- A general ban in the Norwegian Product Regulation, section 2–3, on the production, import, export, placing on the market and use of substances, mixtures and articles containing mercury or mercury compounds since 2008. There are some exemptions to the ban, but none of them are listed in the annex mentioned above. From 1 January 2011 the ban included dental amalgam.

In addition to the general ban described above, Norway has implemented several EU acts covering regulation of mercury-added products listed in Part I of Annex A of the Convention, including:

- Directive 2006/66/EC on batteries and accumulators
- Directive 2011/65/EU on hazardous substances in electric and electronic products (RoHS-directive)
- Directive 2000/53/EC on end-of-life vehicles
- Regulation (EC) 1907/2006 on registration, evaluation, authorisation and restriction of chemicals (REACH-regulation)
- Regulation (EU) 2017/852 on mercury (Mercury regulation)
- Regulation (EC) 1223/2009 on cosmetic products
- Regulation (EC) 1107/2009 on plant protection products
- Regulation (EU) 528/2012 on biocidal products (BPR)

Furthermore, pesticides containing mercury compounds, including inorganic mercury compounds, alkyl mercury compounds, and alkyloxyalkyl and aryl mercury compounds are subjected to the Rotterdam Convention's procedure for prior informed consent. Norway is a party to the Rotterdam Convention, and has transmitted its import response to the Secretariat with the final decision of no consent to import of the pesticides since 1993.

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 the time of reporting, the only entry in Part II in Annex A is dental amalgam. Norway has taken the following measures to phase out the use of dental amalgam:

- A ban on the use of mercury in dental amalgam as a dental filling material was included in the Norwegian Product Regulation, section 2–3, from 2011. Although the use of dental amalgam is now banned in Norway, it will take many years before all existing amalgam fillings are removed. This makes it important to have good waste collection and emission control systems to prevent release of mercury to the environment.
- There is a requirement for amalgam separators with at least 95 per cent degree of cleaning in all dental offices (the Norwegian Pollution Control Regulations section 15a–6).
- For management of mercury extracted from the separator and other dental amalgam waste please see the Norwegian report for art 11.
- In addition, the Norway Pollution Control Regulation section 10 regulates pollution from crematoria.

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.

According to the Norwegian Product Regulation section 2-3 it is prohibited to manufacture, import, export, place on the market and use of articles that contain mercury or mercury compounds.

The Norwegian Product Regulation sections 2-16, 2-17 prohibits the manufacture, import, export, and placing on the market batteries with 5 ppm or more mercury, including batteries built into appliances. For button cells made available on the market prior to 1 October 2015 the limit is 2 % (by weight) mercury.

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.

Because of the general ban Norway has on the production, import, export, placing on the market and use of substances, mixture of substances and articles containing mercury or mercury compounds, no new mercury added products were manufactured or placed on a market in Norway

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

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

Mercury-based chlor-alkali production was discontinued in Norway in 1998. Existing chlor-alkali production is based on mercury free membrane technology. Mercury free membrane technology is also used in the VCM production.

▼ 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

Waste incineration facilities

Norway has granted permits for a low number of new waste incineration plants and modifications to existing ones in terms of increased capacity since the entry into force of the Minamata Convention. Stringent emission limit values for emission of mercury and mercury compounds are set, and the facilities are required to report their emissions on an annual basis. The facilities operate according to BAT/BEP principles and emission limit values for mercury and mercury compounds are set according to the European industrial emission directive (IED).

- ☐ 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

There is one coal fired power plant in operation per today, however, the government is planning to close this facility in 2025.

Progress

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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

There are two coal-fired industrial boilers in operation in Norway, one of which is planned shut down within a short period of time. The other facility operates according to BAT/BEP principles and has low emissions of mercury.

Progress

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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

In Norway, the smelting and roasting processes includes production of the non-ferrous metals zinc and copper.

The facilities operate according to BAT/BEP principles and emission limit values for mercury and mercury compounds are set according to the European industrial emission directive (IED).

Progress

The Norwegian emissions of mercury and mercury compounds from the source category smelting and roasting processes for the production of lead, zinc, copper and industrial gold has been reduced by 50 % since 2011.

▼ 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

Norway has a number of waste incineration facilities falling under the source categories in Annex D of article 8. The facilities operate according to BAT/BEP principles and emission limit values for mercury and mercury compounds are set according to the European industrial emission directive (IED).

Progress

The Norwegian authorities are seeking to reduce the use and release of substances that pose a serious threat to health or the environment, with the target of eliminating them. There are strict limits on the emissions of environmental contaminants from industry on land, the offshore oil and gas industry, aquaculture, wastewater treatment and other sectors in Norway. Emissions from these sources have been considerably reduced in the past 15–20 years.

▼ 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

Norway has two cement clinker production facilities. The facilities operate according to BAT/BEP principles and emission limit values for mercury and mercury compounds are set according to the European industrial emission directive (IED).

Progress

The Norwegian emissions of mercury and mercury compounds from this source category has been reduced by 50 % since 2014.

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?

Thu, 03/18/2021 – 00:00

Please indicate where this inventory is available

Norway has prepared an inventory of emissions from relevant sources. The inventory is available online at <https://www.norskeutslipp.no/>

Statistics Norway and the Norwegian Environment Agency calculate the total annual national emissions to water and air.

Releases to air and water as well as transfers of waste from different sectors, both aggregated and at facility level are presented through the national pollutant release and transfer register.

The data collected to the Norwegian register is consistent with the European Pollutant Release and Transfer Register (E-PRTR) and Norway submits data to the E-PRTR on an annual basis.

All industrial facilities having a permit under the Pollution Control Act are obliged to report yearly emission data to the national pollutant release and transfer register. This includes land-based industries, offshore petroleum industry, landfills and wastewater treatment plants. The facilities report through an official online webservice.

Guidance on how to report is given on the Norwegian Pollution Agency's website and by means of direct guidance to the facilities.

The registry is updated daily.

Norway has also prepared Informative Inventory Report (IIR) 2021 that substantiates the methodologies used in the Norwegian emission inventory of acidifying pollutants, particulate matters, heavy metals and persistent organic pollutants submitted under the UNECE Convention on Long-range Transboundary Air Pollution.

Attach

- [NOR_8.3.pdf](#)
- [NOR_8.3.docx](#)

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

{Empty}

▼ 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.

Norway has identified relevant point source categories of releases of mercury and mercury compounds within the source categories:

Land-based industry, including waste treatment

Wastewater treatment

Landfills

Offshore petroleum industry

Waste may contain environmental contaminants such as mercury. Waste that is classified as hazardous must be collected and disposed of properly, following strict rules designed to prevent the spread of substances that pose a health or environmental hazard. If waste is recycled, it is important to ensure that environmental contaminants are not incorporated into new products. As waste management can contribute to the discharge of mercury into water, Norway has identified releases from waste treatment as a relevant source falling under the obligations of article 9.

To control and reduce releases of mercury from the relevant sources described above, the following measures are taken:

- a) The relevant sources are regulated in terms of regulations and/or permits to operate. Regulations and/or the permits set discharge limit values in order to control and reduce releases of mercury.
- b) BAT/BEP is required in order to operate
- c) EU regulations apply for many of the relevant sources identified.
- d) Phasing out the use of mercury in products, included use of mercury in dental amalgam

The effectiveness of the measures taken is shown in the above paragraphs. However, the data are aggregated data on releases and do not show trends per sector or facility level.

The Norwegian authorities are seeking to reduce the use and release of substances, including mercury and mercury compounds that pose a serious threat to health or the environment, with the target of eliminating them.

Such substances are listed in the Norwegian priority list of environmental contaminants, which currently includes about 66 substances and groups of substances. Industrial releases of priority list substances are therefore only permitted when there are very strong reasons for doing so.

Measures are also taken to control and reduce diffuse releases of mercury from the sectors transportation and contaminated sites.

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?

2021-12-07

Please indicate where this inventory is available

Norway has prepared an inventory of emissions from relevant sources. The inventory is available online at <https://www.norskeutslipp.no/>.

The registry is updated daily.

Statistics Norway and the Norwegian Environment Agency calculate the total annual national emissions to water and air.

Releases to air and water as well as transfers of waste from different sectors, both aggregated and at facility level are presented through the national pollutant release and transfer register.

The data collected to the Norwegian register is consistent with the European Pollutant Release and Transfer Register (E-PRTR) and Norway submit data to the E-PRTR on an annual basis.

All industrial facilities having a permit under the Pollution Control Act are obliged to report yearly emission data to the national pollutant release and transfer register. This includes land-based industries, offshore petroleum industry, landfills, and wastewater treatment plants. The facilities report through an official online web service.

Guidance on how to report is given on the Norwegian Pollution Agency's website and by means of direct guidance to the facilities.

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.

Pursuant to the Norwegian Working Environment Act, the employer must ensure a safe working environment. An employer is required to prevent employee's exposure to hazardous substances. Due to a general ban on the production, import, export and use of substances and mixture of substances containing mercury and mercury compounds (Norwegian Product Regulation section 2-3), the use of mercury and mercury compounds in Norway is limited and each use requires an exemption from the regulation. Regulations are primarily given for use to perform analysis where no available viable alternatives to mercury or mercury compounds exist. When an exemption from the regulation is granted, description of environmentally sound interim storage of mercury and mercury products is required.

Each enterprise or research institute in Norway are obliged to have and follow the Health Safety and Environment guidelines. According to the HSE guidelines, all personnel dealing with mercury must be provided with necessary information and detailed training and be made aware of all safety procedures. Mercury and mercury compounds must be handled safely and according to the safety measures. Trading companies do not have warehouses for interim storage of mercury and mercury compounds and do not physically deal with mercury, but ship directly to their customers in Norway.

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.

Norway have implemented measures to ensure that mercury waste is managed in an environmental sound manner in our national regulations.

Regulation on Waste; Chapter 1 for EE-waste, Chapter 9 for landfills and Chapter 11 for hazardous waste.

Product Regulation article 2-4.

Norway has strong regulations regarding recovery, recycling, and re-use of mercury. Since 1998 the use of mercury in thermometers was ban, general ban on import, export, production, sale and use of mercury and mercury compound since 2008 (Product Regulation article 2–3) and ban on the use of amalgam as a filling material since 2008.

Transboundary movement of waste is regulated in the Waste regulation Chapter 13.

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.

Total amount for waste consisting of mercury or mercury compounds (as defined by article 11, paragraph 2 (a)) deposited into specially engineered landfills. The amounts are based on the annual report from the industries. The amount for 2017 is report in 2018 and so on.

YEAR	2018	2019	2020	2021
TONNS	385	725	293	217

The waste type is MercurySulfid and it was identified and categorized according to table 1 in the appendix to the decision that lists types and likely sources of category A waste (stabilization of waste mercury for storage and/or disposal). The waste originated from the inorganic chemical process industry falling under the European Waste Classification: 060404.

During the identification and categorization process, we also identified mercury contaminated wastes from industrial pollution control devices, wastewater treatment residues and sludges with potentially high mercury content that were deposited in the same specially engineered landfills, as mentioned above. However, this waste was not categorized as category A waste and they are therefore not included in this report.

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

Norway does not have a designed strategy for mercury, but has worked on identifying and assessing contaminated ground, including mercury, for the past decades. A short summary of this work related to mercury, follows.

Locations with contaminated ground are often related to old landfills containing hazardous waste or industrial sites contaminated by hazardous chemicals. Contamination has been caused by both public enterprises and private companies. In many cases, contamination is caused by operations or waste disposal methods that are not considered acceptable today. We have identified several types of industry or activities that have a high probability of contaminating the soil. These include shipyards, petrol and filling stations, mining installations, the galvanic industry, fire-fighting training sites and large greenhouses.

Norwegian regulations on contaminated soil

Contaminated sites are handled by the Environment Agency, the County Governors (regional state authorities) or the municipalities (local authorities). Contaminated soil is regulated through the Pollution Control Act and chapter 2 of the Regulations Relating to Pollution Control, which regulates the remediation of contaminated sites where there is ongoing construction or excavation work. Contaminated soil on industrial sites where the industry still is active is constantly evaluated through individual licenses given to the industry and will in the future also be regulated by the new regulations under the EU's Industrial Emissions Directive.

Soil or bedrock where the concentration of hazardous substances exceeds the Norwegian normative values for contaminated soil, are considered to have a risk for pollution. The normative value for mercury is 1 mg/kg dw. The Environment Agency is currently working on revising the normative values and are considering lowering the value for mercury.

Norway's historical "strategy" on contaminated soil, included mercury

Our prioritizations when working with historical contamination are given in Norway's chemical policy and are also based on experiences with working with contaminated soil over the last decades. In the 1990s Norway put forward a nationwide mapping of landfills and industrial sites with the target of revealing historical contaminated sites and the dumping of hazardous waste. This mapping revealed over 3500 potentially contaminated sites, including those contaminated with mercury, and was the first step towards prioritizing areas with the need for soil assessments and remediation.

The sites were classified into three categories, no risk (1200 sites), slightly contaminated (1700 sites), and sites in need of remediation/further assessments (600 sites). The most serious locations of these 600 were called A-list sites and remediation of these sites was completed in 2005. Of the 500 remaining sites that were investigated (B-list cases), we concluded that there is a need for remediation at around 130 of these. Remediation of 2nd priority sites was completed in 2012 (130 sites).

Because of the obligation to investigate and risk assess land before construction work can be carried out (in cases with reasonable suspicion of soil contamination), many new contaminated sites are detected and remediated.

This resulted in a Database

A nationwide database on contaminated sites has been established, which includes data on all contaminated sites that are known to the pollution control authorities. The database was first established in 2002 and relaunched in 2017. The database is updated as new information becomes available and is reported. The database contains information on which properties are contaminated (by property registration number), the type of contamination, the type of polluting activity that has taken place on the property, whether the pollution control authorities have issued orders for any investigations or action, investigations and clean-up operations that have been carried out, and the current level of pollution. The localities can also be shown on a map. The database is available to the public <https://grunnforurensning.miljodirektoratet.no/> (in Norwegian only). There is also a possibility to report sites where one suspects that the ground is contaminated.

Currently 11093 contaminated sites are registered. 907 sites are identified as heavily contaminated and in need of remediation.

Mercury polluted soil in Norway

In Norway 1095 sites are registered with Hg-contamination in our database:

256 of these are considered to have an unacceptable risk and in need of remediation (not necessarily due to high levels of Hg, but other contaminants)

60 are potentially contaminated sites

670 have some levels of contamination but is considered acceptable with today's land use/no risk of dispersal

109 are considered to be sites with low to no contamination

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

For all practical purposes national legislation was already in place by the time of the adoption of the Convention. No resources have been deemed necessary for its national implementation.

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

Yes. The Norwegian government have contributed to both the GEF and the Specific International Programme.

In 2017, we contributed USD 0.5 million to the Specific International Programme.

In 2018, we contributed NOK 9 million, ca USD 1,046,000 to the Specific International Programme.

In 2019 we contributed NOK 5 000 000, ca USD 556,000 to the Specific International Programme

In 2020 we contributed NOK 4 500 000, ca USD 512,000 to the Specific International Programme.

Please provide comments, if any.

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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

Yes,

In 2017 we contributed with NOK 300 000, ca USD 36,000 in travel support for COP1 for developing country delegates, and with NOK 100 000, ca USD 12,000 in travel support to the Minamata Bureau meeting.

In 2018 we contributed to the Special Trust Fund with NOK 300 000, ca USD 35,000 in travel support for COP2 for developing country delegates.

In 2019 we contributed with NOK 300 000, ca USD 31,995 in travel support for developing country delegates.

In 2020 the Norwegian government contributed with NOK 500 000, ca USD 53,000 to support the study producing a technical background document on artisanal and small-scale gold mining (ASGM) and environmental monitoring.

The Norwegian government has also consistently supported the UNEP Special Programme providing support also for the implementation of the Minamata Convention.

Please provide comments, if any.

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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

Norway has provided technical assistance and capacity-building to China through a Sino-Norwegian Cooperation project on hazardous chemicals relevant to environmental convention capacity building (Sinochem). The project started in 2019 and will finish in 2022. The project focuses on technical assistance, regulatory and policy options as well as research collaboration to support the implementation of the Minamata Convention on Mercury at local/regional/industrial levels. The final report will be published in December 2022.

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

☐ Yes

☒ No

Please specify

Norway is developed country and is not a target for receiving capacity-building or technical assistance pursuant to article 14.

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

Norway provides and facilitates up-to-date technology transfer to China within the bilateral Sinochem project to strengthen China's capacity to effectively implement the Convention. The project is ongoing since 2019. The final report, including training material and guidelines, will be published in December 2022.

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

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▼ 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.

Norway promotes the development and implementation of strategies and programmes to identify and protect populations at risk, particularly vulnerable populations, and develops science-based health guidelines relating to the exposure to mercury and mercury compounds. Since the early 1980s, the Norwegian Food Safety Authority has issued dietary advice recommending that people limit their consumption of certain seafood products which may contain elevated levels of one or more contaminants. The Norwegian Scientific Committee for Food and Environment (VKM) conducted the first risk-benefit assessment of fish consumption in 2006. Following these results presented by VKM in 2006, and a report from the Norwegian National Council for Nutrition, "Dietary advice to promote public health and prevent chronic diseases in Norway" (Norwegian National Council for Nutrition, 2011), recommendations for fish consumption were altered and made quantitative by the Norwegian Directorate for Health in 2014 (Norwegian Directorate of Health, 2014). These dietary guidelines for fish consumption are still applicable.

In 2019 the VKM published a report "Scenario calculations of mercury exposure from fish and overview of species with high mercury concentrations", which contains a summary of species in Norway that may have high mercury content.

In addition to the general recommendation, the Norwegian Food Safety Authority continuously issues regional advice to restrict consumption of fish caught in certain polluted fjords and harbours and fish species known to have high concentrations of pollutants. Several of such warnings are directed to pregnant and lactating women. The general recommendation, warnings and information about the food are available on the website matportalen.no, which was launched in May 2003.

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 Norwegian Institute for Public Health (NIPH) does on regarding different topics related to environment contaminants, including mercury, and their effect on human health. NIPH promotes the development and implementation of programmes to identify and protect populations at risk related to the exposure of mercury and mercury compounds, particularly vulnerable populations. One of such programs is conducted by NIPH is the Norwegian Mother, Father and Child Cohort Study (MoBa), where 95,000 mothers, 75,000 fathers and 114,500 children and adolescents are followed. Data from MoBa allow to perform studies on association between prenatal methylmercury exposure and effects on child neurodevelopment. The studies are published and available to the public online.

Furthermore, NIPH rises public awareness related to the effects of exposure to mercury and mercury compounds on human health and the environment, by publishing articles and fact sheets aimed at the public on their website.

See also information reported under art 18 and art 19.

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

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▼ 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

Norway is an open and transparent society, where information available to authorities is subject to the Freedom of Information Act, which requires authorities and other public bodies to share information with the public, and facilitates the re-use of public information. For details, see information reported under art 18 and art 19.

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

Norway has taken measures on national and international levels to provide the public with information.

The Norwegian Environment Agency informs all stakeholders about new national regulations or changes in national regulations or EU/EEA regulations that are under development on their website. National, public consultations are conducted electronically, and is open to anyone. All hearing statements will be openly published and visible to anyone (<https://www.miljodirektoratet.no/hoeringer/>).

Releases to air and water, as well as transfers of waste from different sectors, are presented through the national pollutant release and transfer register <https://www.norskeutslipp.no/>. The data collected in the Norwegian register is consistent with the European Pollutant Release and Transfer Register (E-PRTR) and Norway submits data to the E-PRTR on an annual basis. The registry is updated daily. Norway has developed and made available inventories under articles 8 and 9. The inventories are available online at <https://www.norskeutslipp.no/>. Statistics Norway and the Norwegian Environment Agency calculate the total annual national emissions of water and air and prepare Informative Inventory reports that substantiate the methodologies used in the Norwegian emission inventory of acidifying pollutants, particulate matters, heavy metals and persistent organic pollutants submitted under the UNECE Convention on Long-range Transboundary Air Pollution. The reports are available online at the Norwegian Environment Agency site <https://www.miljodirektoratet.no/sok?q=Informative%20Inventory%20Report>.

The state of the environment in Norway, as well as change in environmental conditions over time, is shown on the website Environmental Status, <https://www.environment.no>, or in a more extensive version in Norwegian <https://miljostatus.miljodirektoratet.no/tema/miljogifter/prioriterte-miljogifter/kvikksolv-og-kvikksolvforbindelser/>. The website is a collaborative effort between several government agencies, with the Norwegian Environment Agency having the main responsibility. Underlying data sets are openly accessible and can be used by anyone. Environmental Status is part of an international environmental reporting network. This website includes a broad range of information on the state of mercury and mercury compounds in the Norwegian environment based on data on emissions and releases, exposure data from dietary sources, and descriptions of consequences on human health and the environment and measures taken to reduce levels in the environment.

Norway participates in national and international collaborations on environmental management, and scientific research, and supports international initiatives that work to reduce the global threats of mercury. One example is Norway's participation in the Arctic Monitoring and Assessment Program (AMAP), and other programs under the Arctic Council. In 2021 AMAP published a Mercury assessment with a summary to policy makers. The summary is available online, <https://www.amap.no/documents/download/6758/inline>

Norway has several monitoring programmes for environmental contaminants, including mercury and mercury compounds. These are described in detail under article 19.

Matportalen.no is a public website with information related to food, health, and physical activity to consumers, published by Norwegian health and food authorities. This information includes among others regional dietary advice to restrict consumption of fish caught in certain polluted fjords and harbours, and special dietary advice for pregnant and lactating women. The objective of matportalen.no is to help the consumers to make informed choices.

Further, for more information see reporting under article 16 and 19.

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

Norway upholds a PRTR that includes emissions and releases of mercury from all activities that requiring a permission to pollute. Norway also reports these emissions to the UN ECE Convention on Long-Range Transboundary Air Pollution (CLRTAP) yearly. The emissions data is collected and processed by the EMEP Centre on Emissions Inventories and Projections (EMEP/CEIP), to produce spatially distributed emission inventories for Europe, including Russia.

Norway also contributes to the Arctic Monitoring and Assessment Program (AMAP). For the Global Mercury Assessments in 2013 and 2018 global emission inventories for 2010 and 2015 were prepared respectively. Details of methodology used to construct the 2015 emission inventory can be found here: <https://www.sciencedirect.com/science/article/pii/S1352231019303024>. Norway has contributed to the most recent Arctic Mercury Assessment for 2021, which assesses the impact of mercury on the arctic ecosystem and indigenous peoples, considering the various drivers of mercury pollution, including the likely effects of climate change. The summary for policy makers can be found here: <https://www.amap.no/documents/download/6758/inl>.

The Norwegian Environment Agency monitors hazardous chemicals including mercury in air and precipitation, lakes, fjords, marine areas and in terrestrial environment. The following monitoring programs include mercury; contaminants in coastal waters (Hg in marine biota, data series from 1980 ; riverine inputs and direct discharges (Hg in river water); contaminants in urban fjords (Hg in biota, sediment and water); contaminants in terrestrial and urban environment (Hg in biota); contaminants in lakes (Hg in biota), (data series from 1980); monitoring of long range transported contaminants (Hg in

air, moss and precipitation, data series from 1990). Monitoring is mainly conducted in organisms such as cod, blue mussels, trout, seabirds, zooplankton, shrimps, bird of prey, earthworms and foxes. The Norwegian Polar Institute operates a monitoring program that covers Svalbard and Jan Mayen (Hg in top-predators like arctic fox and polar bear, data series from 1990). In addition, the Institute for Marine Research operates several monitoring programs with Hg in commercial oceanic fish species. Monitoring is both close to hotspot sources like industry and cities and in pristine areas like air monitoring on Svalbard. A majority of our monitoring are time trend monitoring providing datasets that are particularly useful to answer the policy questions in the effectiveness evaluation of the Minamata Convention. pa. The monitoring programs have both national funding and funding from regional programs such as EMEP, AMAP, OSPAR and EU Water Framework Directive.

Norway also provides facilities for the ICP Waters Programme Centre, where the Norwegian Environment Agency provides financial support in addition to support from the UNECE. The main aim of ICP Waters is to assess, on a regional basis, the degree and geographical extent of the impact of atmospheric pollution on surface waters, and in 2017 ICP Waters published a report on mercury concentrations in fish. The report presents an extensive database of more than 50 000 measurements of mercury in fish from approximately 3000 lakes throughout Fennoscandia, sampled between 1965 and 2015. The report discusses the usefulness of such databases for assessments of impacts of environmental policy on mercury in freshwater fish, and is available from the ICP Waters web page (<http://www.icp-waters.no/>). In addition, a couple of human biomonitoring data sets exists in Norway. Most notable a cohort study collected between 2002 and 2008 includes samples of mother-child pairs recruited during the pregnancy. Several academic publications have been produced based on the dataset. One of the most recent ones (with references to older ones) can be found here:

<https://www.sciencedirect.com/science/article/pii/S0160412021000933>

The Chemical Coordinating Center (CCC) of EMEP hosted by the Norwegian Institute of Air Research (NILU). NILU also hosts a common database (EBAS: <https://ebas.nilu.no/>) that houses all air monitoring data gathered in EMEP, including Mercury. The Mercury data submitted to EBAS should follow the SOP:s and QA/QC procedures recommended by EMEP: <https://ebas-submit.nilu.no/SOPs>

Norway contributes both emission and monitoring data on mercury to EMEP:s Meteorological Synthesis Center East (MSC-E). MSC-E, together with the CCC, CEIP and the Institute of Environmental Protection-National Research Institute (IOS-PIB) produces yearly status reports, in which the transport and faith of long-range transported POP:s and heavy metals (including mercury) are assessed. The most recent one can be found here: https://en.msceast.org/reports/2_2021.pdf The relative contribution of different sources and regions is also assessed.

Further, for more information see reporting under article 16 and 18.

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)

We found that reporting especially under Art 16, 17, 18 and 19 is complicated and too detailed, and we do not understand the purpose of the level of detail on some of these questions. In addition, it is difficult to distinguish between these points, and it is also reflected in the fact that a lot of information is repeated in several places. Norway is an open and transparent society, where information available to authorities is subject to the Freedom of Information Act, which requires authorities and other public bodies to share information with the public and facilitates the re-use of public information.

▼ SUPPLEMENTAL – ADDITIONAL COMMENTS

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

The reporting format is rigid. There were no possibilities to present information in a graphic way or in a table format.