

To the secretariat of the Minamata Convention

Oslo, 27 June 2022

Response to the call for information on national regulations or industry practices relating to the control of mercury releases from relevant sources.

Regarding the call for information and information on follow-up concerning the decision MC-4/5 adopted by the fourth meeting of the Conference of the Parties to the Minamata Convention (COP-4), dated 13 April 2022, Norway hereby sends information as invited.

Please note that this information response is not specifically restricted to the scope of article 9 of the Minamata Convention. However, we are pleased to share information on Norwegian national regulations and industry practices for the control and reduction of mercury to land and water, for the group of technical experts on developing guidance on best available techniques and best environmental practices to control releases from relevant sources.

Background

In Norway, it is prohibited to manufacture, import, export, sell and use any substances, mixture of substances, or articles containing mercury or mercury compounds according to the Norwegian Product Regulation, section 2-3. The ban also includes substances and mixtures of substances for analysis and research purposes¹. From 1 January 2011, the ban included dental amalgam.

In addition to the general ban described above, Norway through the EEA Agreement on the European Economic Area (the EEA) has implemented several EU acts covering the regulation of mercury, mercury compounds, and mercury-added products with the aim to reduce mercury discharge to the environment, including, but not limited to:

- European industrial emission directive 2010/75/EU (IED)
- Urban Waste Water Directive 91/271/EEC
- Directive 1999/31/EC on the landfill of waste
- Water frame directive 2000/60/EC

¹ The prohibition does not encompass uses regulated in REACH Annex XVII entry 18, 18a and 62.

- Regulations 98/83/EC on Water Supply and Drinking Water
- Directive 2000/76/EC on the incineration of waste
- 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, authorization and restriction of chemicals (REACH-regulation)
- Regulation (EU) 2017/852 on mercury (Mercury regulation)

The EEA legislation and Norway's international commitments, such as Basel, Rotterdam, and Minamata conventions, are incorporated into Norwegian national legislation:

- Product Control Act
- Pollution Control Act
- Regulation on the Limitation of Pollution
- Regulations on Recycling and Treatment of Waste
- Regulations on Restrictions on Use of Certain Hazardous Chemicals (Product Regulation)
- Regulations on framework for water governance

Norwegian priority list;

Mercury is listed on the Norwegian priority list, which contains over 30 chemicals and groups of chemicals, is part of the Norwegian government's target to eliminate or substantially reduce releases of priority substances. These can include those with persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) and endocrine-disrupting properties.

List of European guidance on best available techniques and best environmental practices

Norway has implemented the European Union Industrial Emissions Directive (2010/75/EU). The directive lays down rules to prevent or, where that is not practicable, to reduce industrial emissions into air, water and land, and to prevent the generation of waste, to achieve a high level of environmental protection.

The legislation covers industrial activities in the following sectors:

- energy;
- metal production and processing;
- minerals;
- chemicals;

- waste management;
- and other sectors such as pulp and paper production, slaughterhouses, and the intensive rearing of poultry and pigs.

The directive sets down minimum requirements for specific sectors in separate chapters. It includes specific rules relating to:

- combustion plants — operating aspects, emission limits, monitoring and compliance rules;
- waste incineration plants and waste co-incineration plants — operating requirements, emissions limits, monitoring and compliance rules;
- installations and activities using organic solvents — includes emission limits, reduction schemes, and requirements to substitute hazardous substances;
- installations producing titanium dioxide — sets emission limits, monitoring rules, and bans the disposal of certain forms of waste into any body of water.

All installations covered by the directive must prevent and reduce pollution by applying the best available techniques (BATs) and address efficient energy use, waste prevention and management, and measures to prevent accidents and limit their consequences.

The installations can only operate if in possession of a permit and have to comply with the conditions set therein.

Permit conditions are based on the BAT conclusions adopted by the European Commission.

Emission limit values must be set at a level that ensures pollutant emissions do not exceed the levels associated with the use of BATs, unless it is proven that this would lead to disproportionate costs compared to environmental benefits.

National authorities are required to conduct regular inspections of the installations.

The European IPPC Bureau produces EU Best Available Techniques reference documents (BREFs), which are a series of reference documents covering, as far as is practicable, the industrial activities listed in Annex 1 to the EU's IPPC Directive.

The BREFs provide descriptions of a range of industrial processes and for example, their respective operating conditions and emission rates. Member States are required to take these documents into account when determining best available techniques generally or in specific cases under the Directive. They also provide the reference for setting emission limit values and issuing operating permits for industrial installations in EU Member States.

BAT reference documents:

All BREFs are available from the European IPPC Bureau's webpage:

<https://eippcb.jrc.ec.europa.eu/reference>.

Highlighted in bold typo refers to BAT reference documents (BREF) specifically describe techniques and practices related to mercury releases to land and water, and/or also defined associated emission levels (BAT-AEL) or performance levels.

- **Production of Chlor-alkali**
- Ceramic Manufacturing Industry
- **Production of Cement, Lime and Magnesium Oxide**
- **Common Waste Water and Waste Gas Treatment/Management Systems in the Chemical Sector**
- Economics and Cross-media Effects
- **Emissions from Storage**
- Energy Efficiency
- Food, Drink and Milk Industries
- Ferrous Metals Processing Industry
- Manufacture of Glass
- Industrial Cooling Systems
- Intensive Rearing of Poultry or Pigs
- **Iron and Steel Production**
- **Large Combustion Plants**
- **Large Volume Inorganic Chemicals**
- **Large Volume Inorganic Chemicals – Ammonia, Acids and Fertilisers**
- **Large Volume Inorganic Chemicals – Solids and Others Industry**
- **Production of Large Volume Organic Chemicals**
- **Non-ferrous Metals Industries**
- Manufacture of Organic Fine Chemicals
- Production of Polymers
- **Production of Pulp, Paper and Board**
- **Refining of Mineral Oil and Gas**
- Monitoring of Emissions to Air and Water from IED Installations
- Slaughterhouses and Animals By-products Industries
- Smitheries and Foundries Industry
- **Production of Speciality Inorganic Chemicals**
- **Surface Treatment Of Metals and Plastics**
- Surface Treatment Using Organic Solvents including Wood and Wood Products Preservation with Chemicals
- Tanning of Hides and Skins
- Textiles Industry
- Wood-based Panels Production
- **Common Waste Gas Management and Treatment Systems in the Chemical Sector**
- **Waste Incineration**
- **Waste Treatment**

Other guidelines

The report "Guidance for reducing and controlling emissions of mercury compounds in the cement industry" (World Business Council for Sustainable Development (WBCSD), 2016) provides additional information on the potential for releases of mercury to water from this industry segment.

The report describes the cement process and mercury mass balance regimes, abatement technologies for Hg-emissions, and also documents potential discharge routes of mercury to water when using wet scrubber technology. Wet scrubber technology is used especially for kilns with high SO₂-emissions and represents a potential path for releases to water as different cement kilns are known to have widely varying speciation of mercury (Hg⁰ versus Hg²⁺). Gaseous compounds of oxidized mercury (Hg²⁺) are water-soluble and can absorb in the aqueous slurry of a wet scrubber system.

Please refer to: http://docs.wbcsd.org/2016/07/CSI_Guidance_Cement_Industry.pdf

We would also like to draw attention to the BAT/BEP guidance related to article 8 of the Minamata Convention, which describes abatement techniques for emissions to air that might result in mercury releases to water from wet gas scrubbers due to the formation of soluble Hg.

Please refer to:

http://www.mercuryconvention.org/Portals/11/documents/publications/BAT_BEP_E_interractif.pdf

References:

- European Union Industrial Emissions Directive (2010/75/EU) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32010L0075>
- BAT reference documents: <https://eippcb.jrc.ec.europa.eu/reference>
- Guidance for reducing and controlling emissions of mercury compounds in the cement industry. World Business Council for Sustainable Development (WBCSD), 2016. http://docs.wbcsd.org/2016/07/CSI_Guidance_Cement_Industry.pdf
- http://www.mercuryconvention.org/Portals/11/documents/publications/BAT_BEP_E_interractif.pdf

