

Submission from Norway on UNEP Call for Submission of information in response to the requests from INC7 to prepare a global legally binding instrument on mercury

Article 7 – Artisanal and small-scale gold mining

Norway has no additional information on ASGM, beyond the previously submitted information in follow up to INC6, provided in document UNEP(DTIE)/Hg/INC.7/12.

Article 10 – Environmentally sound interim storage of mercury, other than waste mercury

We suggest the following elements and issues should be included in a guidance on interim storage of mercury other than waste mercury:

- When the guidance document is developed, it would be beneficial to provide differentiated guidance for storage of liquid mercury and for storage of other more stable forms of mercury. Liquid mercury is an unstable form of mercury and will need stricter control measures for interim storage than other more stable forms of mercury.
- The guidance needs to define "interim" storage of mercury, and highlight that this is guidance on environmentally sound storage of mercury that is not waste.
- Interim storage facilities should have an authorization or permit from relevant authorities. The authorization or permit should as minimum set out the standards for the facility and the volume permitted, and that mercury should be stored in an environmentally sound manner.
- In general, storage facilities should not be built in sensitive areas where weather or other conditions may cause risk of mercury pollution. Mercury facilities should be kept locked, and access should be permitted only to those with authorized access. Before acceptance of mercury to the facility, there should be a proper acceptance control and registration of volume and date of arrival. An inventory of the mercury kept in the storage should be updated regularly as mercury is added or removed.
- There should be guidance on control and surveillance of the facility during operation, and regular inspections of storage facilities to check for spills or leakages.
- There should be a private agreement between the facility and the owner of the mercury, stating ownership of the mercury. It will be important that responsibility for the mercury is clearly defined e.g. in cases like if the mercury loses its value or becomes waste, if the content is otherwise than declared, or if the storage facility goes out of business.

Article 11 – Mercury wastes

Norway has no additional information to provide in regards to the development of mercury waste thresholds, beyond the previously submitted information in follow up to INC6, provided in document UNEP(DTIE)/Hg/INC.7/12.

Article 12 – Contaminated sites

In Norway, clean-up of contaminated sediments and soil containing mercury, is part of an overall effort made to prevent hazardous substances from damaging health and the environment.

We have national focus on remediation of prioritized sites, clean soil in kindergartens and day-care centers, assessing industries with high probability of contaminating soil and safe handling of contaminated soil. Further information can be found in the Government-report "Working together towards a non-toxic environment and a safer future" (White Paper nr. 14 2006-2007 pg. 96-100, chapter 10.2-10.3):

https://www.regjeringen.no/contentassets/abe386e25e0e4d788e868d5f7f991362/en-gb/pdfs/stm200620070014000en_pdfs.pdf

Threshold value and guidance value

The current national threshold value defining clean/contaminated soil for mercury is 1 mg/ kg DW. This is an ecotoxicological-based value (10 % bioavailability including me-Hg). For sediments (coastal), the value is 0.52 mg/kg DW.

Norway applies guidelines that divide soil into different classes of soil condition (based on concentrations of hazardous substances). The categorization shows which classes are acceptable for soil on a given site. Guidelines also includes the absolute minimum number of samples necessary to determine the condition of the soil.

Guidelines are available here (in Norwegian only¹):

<http://www.miljodirektoratet.no/old/klif/publikasjoner/2553/ta2553.pdf>

Guidance values for Hg for different land use criteria:

Classification of soil condition based on health risk/ pollutant (mg/kg DW)	1	2	3	4	5
	Very Good (clean soil)	Good (i.e. housing, playgrounds)	Moderate (central areas, offices and stores)	Bad (traffic, industry)	Very Bad (upper limit defines max [x] acceptable at any site)
Hg	< 1	1-2	2-4	4-10	10-100

The full version of the national guidelines on risk assessment of contaminated sites "Guidelines for the Risk Assessment of Contaminated Sites" (for 58 substances including mercury), can be found here (in English): <http://www.miljodirektoratet.no/old/klif/publikasjoner/andre/1691/ta1691.pdf>

The web portal Environment.no provides further information on management of contaminated sites in Norway in general. State of the environment-Norway on contaminated sites:

<http://www.environment.no/topics/hazardous-chemicals/contaminated-soil/>

National database

The Norwegian Environment Agency has created a database that gives information about sites where there is contaminated soil or reason to suspect contamination. The database gives information on the site, type of contamination and assessments if measures have been taken on the area. There is also a possibility to report sites where one suspects that the ground is contaminated.

<http://grunn.miljodirektoratet.no/> (in Norwegian only)²

¹ The document is unfortunately only available in Norwegian. For specific questions regarding the guidelines, please do not hesitate to contact us by email: eirik.hovland.steindal@miljordir.no

² The web site is unfortunately only available in Norwegian. For specific questions regarding the database, please do not hesitate to contact us by email: eirik.hovland.steindal@miljordir.no

Lastly, in regards to contaminated sites, Norway would like to draw the attention to the extensive and informative guidance document provided by the NGO IPEN "Guidance on the Identification, Management and Remediation of Mercury Contaminated Sites", dated March 2016. Norway would like this document to be included in the compilation provided by the Secretariat.

(<http://ipen.org/documents/ipen-guidance-identification-management-and-remediation-mercury-contaminated-sites>)

Article 22 – Effectiveness evaluation

Submission of relevant information

Norway has previously submitted information in follow up to INC6, provided in document UNEP(DTIE)/Hg/INC.7/12. The present submission supplements previous submissions, containing information and reference to national monitoring programs on mercury in various media. The information may serve as relevant guidance on monitoring methodology and as an input to discussions on the choice of matrices. As a supplement, we would like to provide you with the following information, all relevant for the development of an overall monitoring approach:

- Arctic Monitoring and Assessment Program (AMAP)
Norway endorses and supports the submission of the AMAP, dated October 11, on Article 22 Effectiveness evaluation. We encourage the Minamata Secretariat to make use of the more than 25-year experience with coordinating monitoring of contaminants in the Arctic.
- Web links to the national monitoring programs listed in previous submission.
This information has also been provided in the UNEP survey on national Hg networks. Some reports are in English, others have an English summary.
 - 1. Contaminants in coastal waters (Hg in marine biota)
<http://www.miljodirektoratet.no/no/Publikasjoner/2015/November-2015/Contaminants-in-coastal-waters-of-Norway-2014/>
 - 2. Riverine inputs and direct discharges (Hg in river water)
<http://www.miljodirektoratet.no/no/Publikasjoner/2015/Januar/Riverine-Inputs-and-Direct-discharges-to-Norwegian-coastal-waters--2013/>
 - 3. Contaminants in urban fjords (Hg in biota, sediment and water)
<http://www.miljodirektoratet.no/no/Publikasjoner/2016/September-2016/Environmental-Contaminants-in-an-Urban-Fjord2015/>
 - 4. Contaminants in terrestrial and urban environment (Hg in biota)
<http://www.miljodirektoratet.no/no/Publikasjoner/2015/Oktober-2015/Environmental-pollutants-in-the-terrestrial-and-urban-environment/>
 - 5. Environmental pollutants in large Norwegian lakes (Hg in biota) – English summary in report
<http://www.miljodirektoratet.no/no/Publikasjoner/2015/September-2015/Miljogifter-i-store-norske-innsjoer-2014-/>
 - 6. Monitoring of long range transported contaminants (Hg in air, moss and precipitation)
Moss:
<http://www.miljodirektoratet.no/no/Tema/Miljoovervakning/Naturovervakning/Giftfritt-miljo/Moseprogrammet/Rapporter-fra-Moseprogrammet/>
Air and precipitation:
<http://www.miljodirektoratet.no/no/Tema/Miljoovervakning/Naturovervakning/Giftfritt-miljo/Langtransporterte-atmosfariske-miljogifter/>

<http://www.miljodirektoratet.no/no/Tema/Miljoovervakning/Naturovervakning/Giftfri-itt-miljo/Langtransporterte-atmosfariske-miljogifter/Rapporter-fra-overvakning-av-langtransporterte-forurensninger-i-luft-og-nedbor/>
2015-report: <http://www.miljodirektoratet.no/no/Publikasjoner/2016/August-2016/Monitoring-of-long-range-transported-air-pollutants-in-Norway-annual-report-2015/>

- 7. The marine area database for Norwegian waters (MAREANO) is a national monitoring program for the marine environment – mapping, amongst others, the environmental status of marine sediments. The program has existed since 2005 and mercury is one of the components measured. More information can be found here: <http://mareano.no/en>

In addition to conducting national monitoring, Norway participates in and submits data to various regional monitoring programs listed below. We strongly encourage the Minamata Secretariat to consult the various programs for useful information on monitoring data, methodology and comparability experience.

- National air monitoring programs

The national air monitoring programs support several international regional monitoring programs by providing data. All data are openly available at <http://ebas.nilu.no>. We encourage UNEP to solicit more information from the following programs:

- The European Monitoring and Evaluation Program (EMEP) under the Convention on Long-range Transboundary Air Pollution (CLRTAP). <http://www.emep.int/>
- CAMP (Comprehensive Atmospheric Monitoring Program) under OSPAR (the Convention for the Protection of the marine Environment of the North-East Atlantic, <http://www.ospar.org>).
- AMAP (Arctic Monitoring and Assessment <http://www.amap.no>), member of the fate and transport mercury partnership.
- WMO/GAW (The World Meteorological Organization, Global Atmosphere Watch program, <http://www.wmo.int>).
- A subset of the data are also reported to EEA (European Environmental Agency, <http://www.eea.europa.eu/>) as required in the EU air quality directive (EU, 2008).

- Fish and seafood database

The National Institute of Nutrition and Seafood Research has in addition monitoring of Hg in a wide range of fish and seafood, for some with a long time series. An extensive searchable database can be found here: http://www2.nifes.no/index.php?page_id=137&lang_id=2

- Monitoring database

In order to fulfill our obligations under the Water Framework Directive, Norway has several other monitoring activities in freshwater systems. All these data are reported in the online database Vanmiljø – and can be accessed freely (only available in Norwegian).³

<http://vanmiljo.miljodirektoratet.no/>

- Mercury in the Arctic

On behalf of the Norwegian Government several research institutes monitor mercury in

³ For technical and online guidance, please contact Mr. Dag Rosland, at the Norwegian Environment Agency: dag.rosland@miljodir.no

various media in the arctic (biota, sediment and air), through the Environmental Monitoring of Svalbard and Jan Mayen program (MOSJ). These data are available on the MOSJ website: <http://www.mosj.no/en/influence/pollution/>

- ICP Waters database (UNECE)

The International Cooperative Program on Assessment and Monitoring Effects of Air Pollution on Rivers and Lakes (ICP Waters) is a program for monitoring the effects of acid rain and air pollution on water and watercourses. Twenty countries (18 European countries, USA and Canada) participate and supply monitoring data to the program's central database. The monitoring data provide a basis for documenting effects of long-range transboundary air pollutants, providing science-based support for policy developed under the Convention of Long-Range Transboundary Air Pollution (UNECE). An additional important program activity is to contribute to quality control and harmonization of monitoring methods. The program is financed by the Norwegian Environment Agency and UNECE. Mercury has in general not been reported to the database; however, ICP Waters has recently initiated an extensive collection of data on mercury in fish in the Nordic countries, North America and Russia. For more information please consult Mrs. Heleen de Wit, senior research scientist at the Norwegian Institute of Water Research, and leader of the program, <http://www.niva.no/en/se-ansatt?navn=Heleen%20de%20Wit>
The ICP Waters webpage can be found at: <http://www.icp-waters.no/>

- OSPAR CEMP/JAMP

Furthermore, we would like to draw the attention to OSPARs work on monitoring of various priority contaminants, including mercury. OSPAR is the mechanism by which 15 Governments, including Norway & the EU cooperate to protect the marine environment of the North-East Atlantic. OSPAR's Coordinated Environmental Monitoring Program (CEMP), previously called Joint Assessment & Monitoring Program (JAMP), aims to deliver comparable monitoring data from across the OSPAR maritime area. As part of this work, OSPAR has produced a number of guidelines over the years in relation to monitoring and assessment. Several of these are currently under review. Information from OSPAR, for example on its work on determining environmental quality standard (EQS) for Hg in biota, may be a useful reference for assessing the relevance of the monitoring data.

- ICES

The International Council for the Exploration of the Sea (ICES) is an intergovernmental organization that develops science and advice to support the sustainable use of the oceans. ICES has a network of more than 4000 scientists from over 350 marine institutes in 20 member countries, including Norway. Through strategic partnerships, the organization also extends into the Arctic, the Mediterranean Sea, the Black Sea, and the North Pacific Ocean. ICES has a well-established Data Centre, which manages a number of large dataset collections related to the marine environment. The majority of data – covering the Northeast Atlantic, Baltic Sea, Greenland Sea, and Norwegian Sea – originate from national institutes that are part of the ICES network. The ICES Data Centre provides marine data services to ICES member countries, expert groups, world data centers, regional seas conventions (HELCOM and OSPAR), the European Environment Agency (EEA), Eurostat, and various other European projects and biodiversity portals. We encourage the Minamata Secretariat to consult with and explore how the ICES data and experience can be used when establishing an effectiveness evaluation system under the convention.

Contact person

For electronic communication regarding the development of a roadmap and a report on effectiveness evaluation we provide you with the contact details for Mr. Eirik Steindal with the following contact details:

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