



Briefing on the Second Meeting of the Conference of the Parties to Minamata Convention on Mercury

Introduction

The second meeting of the Conference of the Parties to Minamata Convention on Mercury (COP2) was held in Geneva, Switzerland, from 19-23 November 2018. Delegates from its 128 signatories, 101 ratification countries, NGOs and IGOs attended the week-long meeting and participated in the discussion on a series of issues. The International Copper Study Group, the International Lead and Zinc Study Group and the International Nickel Study Group are the only intergovernmental organizations that have been admitted as IGO Observers on the COP2 to Minamata Convention. Mr. Jianbin Meng, ILZSG/INSG Director of Economics and Environment represented the Study Groups on this occasion.

Mercury and mercury compounds are toxic and can be absorbed through the skin, mucous membranes and inhalation. They can also enter the food chain through water and the atmosphere. The Minamata Convention on Mercury is an international treaty designed to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds. The Convention resulted from three years of meetings and negotiations, after which the text of the Convention was approved by delegates representing 140 countries on 19 January 2013 in Geneva. It was then adopted and signed on 10 October 2013 at a Diplomatic Conference held in Kumamoto, Japan. The Convention is named after the Japanese city Minamata. This naming is of symbolic importance as the city went through a devastating incident of mercury poisoning. It is expected that over the next few decades, this international agreement will enhance the reduction of mercury pollution from the targeted activities responsible for the major release of mercury to the immediate environment.

Mercury is a trace element in some copper, lead and zinc ores and is removed during the roasting, sintering and smelting processes as a by-product or impurity waste through a variety of air emission abatement technologies such as bag filters, electrostatic precipitators, scrubbers and other combined gas cleaning and acid plants.

Comments or Questions

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Apart from a series of organizational and budget issues discussed on COP2, mercury release, mercury waste, guidance on the management of contaminated sites, capacity-building, technical assistance and technology transfer and effectiveness evaluation were all discussed extensively.

Mercury Release

Among the major anthropogenic emission sources of mercury to the environment, non-ferrous metals production is identified as the second largest emission source after the Artisanal and Small Scale Gold Mining (ASGM) sector. It accounts for 30% of the total non-ASGM sector release followed by municipal waste water 25%, mercury added products 17%, coal washing and coal fired power plant 16%, large scale gold mining 10%, mercury production 0.9%, chlor-alkali 0.5% and oil refining 0.1%.

Mercury Waste

In the discussion on mercury waste, calomel (a colorless tasteless powder consisting chiefly of mercurous chloride, used medicinally, esp. as a cathartic. Formula: Hg_2Cl_2) recovered from zinc, lead and copper smelting process is considered to be one of the mercury wastes consisting of mercury or mercury compounds. Debate on this took place during the discussion since experts had differing views based on the facts that calomel is sold to other industries as a raw material and in some cases it is landfilled. To decide whether tailings, extraction process residues, flue gas cleaning residues, wastewater treatment residues, debris from the metal (aluminium, copper, gold, lead, manganese, zinc, primary ferrous metal, other non-ferrous metals) extraction and initial processing should be listed as wastes contaminated with mercury or mercury compounds, experts have expressed different opinions and reached a consensus for further discussion on this issue. Possible mercury waste from secondary metal production was also discussed with a focus on recovering metals from the dismantling of chlor-alkali facilities.

Guidance on the Management of Contaminated Sites

Parties to the Minamata Convention on Mercury are obliged to develop appropriate strategies for identifying and assessing sites contaminated by mercury or mercury compounds together with environmentally sound actions and assessed measures that

should be taken to reduce the risks posed by the contaminated sites.

Most of the mercury produced as a result of non-ferrous metal smelting and roasting among other industrial-scale activities such as coal burning, cement clinker production and waste incineration can be captured through pollution control measures. However, this in turn produces mercury-contaminated solid and liquid wastes that need to be managed safely. Mismanagement of waste, particularly waste water, can result in releases of mercury to water, land and soil. Industrial-scale mining activities, particularly where the ore has high mercury content, can also result in releases of mercury to air, land and water systems, while the mine tailings may be heavily contaminated with mercury.

Capacity Building, Technical Assistance and Technology Transfer

The Conference of the Parties made it clear that it welcomed any submission of capacity-building and technical assistance, alternative technologies, existing initiatives and activities for further consideration in its future meetings.

Japan, Nigeria and the United States of America, and two non-governmental organizations, namely the International POPs (persistent organic pollutants: a class of highly hazardous chemical pollutants that are recognized as a serious, global threat to human health and to ecosystems) Elimination Network and the Zero Mercury Working Group submitted respective alternative technologies that have been developed to address mercury issues as well as examples of how they have been used, including in the context of technical assistance and capacity-building activities in developing countries and countries with economies in transition.

On the sidelines of the meeting, Batrech Industrie AG and SARP Industries from Switzerland, BMT Group from the Netherlands, ECON Industries Services GmbH and REMONDIS QR from Germany, and Nomura Kohsan Co., Ltd. from Japan presented and showcased their most recent practices, technologies and equipment to treat mercury waste.

Effectiveness Evaluation

The Conference of Parties endeavors to set up an Effectiveness Evaluation Framework based on comparable monitoring data gathered on levels of mercury in air, biota (all the plant and animal life of a particular region or period) and humans. Cost-effective, practical, feasible and sustainable methods are available for all types of monitoring. For air, it is recommended that a combination of air sampling (both active and passive) and wet deposition, where feasible, be undertaken. For human biomonitoring, hair and umbilical cord blood meet all the criteria for inclusion in a global monitoring program. For biota, the sampling methods might vary depending on the biome and the objective; however, sampling that meets all the considerations is possible. The technologies, analytical capacity and expertise needed to establish global monitoring are available,

thus progress towards establishing an Effective Evaluation Framework at the global level was possible.

Note for Member Countries of the Metals Study Groups

Non-ferrous metal production has been identified as the second largest anthropogenic emission source of mercury, particularly lead, zinc and copper. The industry could face more stringent supervision and inspection on its emission and pollutant treatment practices. Most of member countries are either signatories or ratification countries to the Minamata Convention on Mercury, and will be obliged to take appropriate measures to meet the standards or targets set by the Minamata Convention regarding reduction of mercury release, adoption of relevant technologies to capture mercury, monitoring and reporting their mercury reduction efforts and to release data as part of corporate social responsibility. This will lead to extra cost and administration efforts. Any member wishing to get in touch with the Minamata Convention or related contact points in their respective countries can contact the Secretariat for further information.

INSG

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