

## United States of America

### Measures to Implement the Minamata Convention on Mercury

Pursuant to Article 30, paragraph 4, of the Minamata Convention on Mercury, the United States provides the following information on its measures to implement the Convention. Some of the listed measures go beyond what would be required simply to implement United States obligations under the Convention. All laws and regulations cited in this document are publicly available on the Internet.

#### Article 3: Mercury supply sources and trade

There is no primary mercury mining in the United States and there have been no active mercury mines since the early 1990s.

The United States has information on existing stocks and supply sources of mercury and can obtain more information as needed under the Chemical Data Reporting Rule, *see* 40 C.F.R. § 711.8(b), and the Emergency Planning and Community Right to Know Act, 42 U.S.C. § 11022.

The United States has taken measures through the Resource Conservation and Recovery Act and the Mercury Export Ban Act of 2008 to ensure the proper disposal of excess mercury from the decommissioning of chlor-alkali facilities. *See* 42 U.S.C. § 6939f(g)(2)(B); 15 U.S.C. § 2611(c).

Under the Mercury Export Ban Act, export of mercury from the United States is generally prohibited. *See* 15 U.S.C. § 2611(c). Although any person may petition for an exemption to the export restriction, the criteria for granting such exemptions are consistent with the provisions of this Article, including that the country where the mercury will be used must certify its support for the export. *See* 15 U.S.C. § 2611(c)(4).

The United States will act under paragraph 9 of this article and has submitted a separate statement outlining its domestic measures to ensure that imported mercury is managed in an environmentally sound manner.

#### Article 4: Mercury-added Products

The United States will act under paragraph 2 of this Article and has provided a separate statement demonstrating that it has reduced to a de minimis level the manufacture, import, and export of the large majority of the products listed in Part I of Annex A and that it has implemented measures or strategies to reduce the use of mercury in additional products that are not listed in Part I of Annex A.

The United States will implement at least two measures listed in part II of Annex A under the Public Health Service Act, 42 U.S.C. § 241(a), and the Clean Water Act. *See* <http://water.epa.gov/scitech/wastetech/guide/dental/index.cfm>.

#### Article 5: Manufacturing processes in which mercury or mercury compounds are used

The United States has no acetaldehyde production in which mercury or mercury compounds are used as a catalyst. With respect to chlor-alkali production, all but two facilities in the United States that previously used mercury have closed or converted to non-mercury processes. The United States has registered for an exemption from the phase-out date to cover those two facilities, although they may also close or convert to non-mercury processes prior to the phase-out date.

New or reconstructed facilities are effectively prohibited from using mercury under section 112 of the Clean Air Act. See 40 C.F.R. § 63.8190. Emissions and releases from existing facilities are controlled under the Clean Air Act, see 40 C.F.R. §§ 63.8190 and 63.8192, and Clean Water Act. See 40 C.F.R. Part 415, Subpart F.

With respect to processes listed in part II of Annex B, the United States is not aware of any facilities using mercury for vinyl chloride monomer production; sodium or potassium methylate or ethylate production; or polyurethane production. It can endeavor to identify such facilities under measures including the Toxics Release Inventory established by the Emergency Planning and Community Right to Know Act, 42 U.S.C. § 11023. Were the United States to identify any such facilities, it would be able to take the measures outlined in the appropriate section of Annex B under authorities including the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, and Comprehensive Environmental Response, Compensation, and Liability Act.

#### **Article 7: Artisanal and small-scale gold mining (ASGM)**

The United States has no data or other evidence indicating that there is more than insignificant mercury use in ASGM in the United States.

The United States nevertheless has attempted to identify instances of mercury use in recreational or hobby mining and to raise awareness about mercury risks, although to date it has not identified a specific instance of intentional use of mercury in ASGM. The United States disseminates information on non-mercury ASGM techniques, emissions reduction techniques and technologies, and measures to prevent releases to the environment from ASGM mining. The United States also has authority, if necessary, to take action to prevent and respond to releases or substantial threats of releases of mercury to the environment. See, e.g., 42 U.S.C. § 9604.

The United States engages in cooperation designed to reduce the use of mercury in ASGM and emissions of mercury from that activity, both bilaterally and multilaterally through entities such as the UNEP Global Mercury Partnership, under various authorities including the Clean Air Act, 42 U.S.C. § 7403.

#### **Article 8: Emissions**

The United States has taken measures under the Clean Air Act to control emissions of mercury and mercury compounds in the United States. Mercury and mercury compounds are hazardous air pollutants listed in section 112 of the Act, 42 U.S.C. § 7412, and the United States has issued numerous standards that regulate mercury emissions from various industrial source categories. See 40 C.F.R. Part 63. These technology-based standards must be reviewed every eight years and revised if necessary to account for developments in practices, processes, and control technologies. In addition, eight years after the standards are set, an evaluation of the remaining risk must be undertaken and additional standards applied if necessary to protect public health and the environment.

Section 129 of the Act, 42 U.S.C. § 7429, provides authority for EPA to set national standards for a set of pollutants, including mercury and mercury compounds, from new solid waste incinerators and emissions guidelines for existing solid waste incinerators. The standards and guidelines are required to be reviewed, and potentially revised, every five years. U.S. states are required to submit plans to implement and enforce the guidelines. A federal plan is developed as a backstop for units in states that have not submitted approvable

plans. The standards and guidelines are codified at 40 C.F.R. Part 60, and federal plans are codified at 40 C.F.R. Part 62.

Maximum Achievable Control Technology (“MACT”) standards set under these authorities represent the maximum degree of reduction in emissions taking into consideration the costs of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements. For new (and substantially reconstructed or modified) major sources, these standards must be at least as stringent as is achieved by the best-controlled similar source. MACT standards for existing sources are to be at least as stringent as the average level of emission reduction already achieved by the best performing 12% of sources in the same category. Many of the mercury-specific standards applicable to new sources in the United States are expressed as emission limit values.

With respect to the specific source categories identified in Annex D, the United States has promulgated the following relevant regulations (that collectively apply both to new and existing sources):

Coal-fired power plants - 40 C.F.R. Part 63 Subpart UUUUU; 40 C.F.R. Part 60 Subparts D and Da; 40 C.F.R. Parts 72-76; 40 C.F.R. Part 51 Subpart P, Subpart G, and Subpart I; and 40 C.F.R. Parts 96 and 97.

Coal-fired industrial boilers - 40 C.F.R. 63 Subpart DDDDD and Subpart JJJJJ.

Smelting and roasting processes used in the production of non-ferrous metals - 40 C.F.R. 63 Subpart EEEEEEE (gold); 40 C.F.R. Part 63 Subparts QQQ, EEEEE, and FFFFFFF (copper); 40 C.F.R. 63 Subparts TTT and X (lead); and 40 C.F.R. Part 63 Subpart GGGGGG (zinc).

Waste incineration facilities - 40 C.F.R. Part 60 Subparts Ea, Eb, Cb, AAAA, and BBBB and 40 C.F.R. Part 62 Subparts FFF and JJJ (municipal waste combustors); 40 C.F.R. Part 60 Subparts CCCC and DDDD (commercial and industrial waste incinerators); 40 C.F.R. Part 60 Subparts Ec and Ce and 40 C.F.R. Part 62 Subpart HHH (hospital, medical and infectious waste incinerators); 40 C.F.R. Part 60 Subparts LLLL and MMMM (sewage sludge incinerators); and 40 C.F.R. Part 63 Subpart EEE (hazardous waste combustors).

Cement clinker production facilities - 40 C.F.R. Part 63 Subpart LLL.

The regulations described above have reduced or will significantly reduce mercury emissions from relevant sources in the United States.

The United States has a well-developed inventory of mercury emissions from relevant sources. The National Emissions Inventory is a national compilation of emissions sources collected from U.S. state, local, and tribal air agencies as well as from information from regulatory programs. In addition, section 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. § 11023, requires certain facilities to annually report information on emissions of toxic chemicals, including mercury.

#### **Article 9: Releases**

In the United States, the Emergency Planning and Community Right-to-Know Act, the Pollution Prevention Act, the Clean Water Act, and the Comprehensive Environmental Response, Compensation, and Liability Act all require or authorize the Environmental Protection Agency to require reporting of releases of mercury, including mercury compounds, to the environment. These statutes

would ensure that the United States would be able to identify releases contemplated by this Article (releases from significant anthropogenic point sources not addressed in other provisions of the Convention), were any to occur, and to create an inventory of such releases. See, e.g., 42 U.S.C. § 9603; 40 C.F.R. § 302.4 and table.

If a relevant source were identified in the United States, authority exists to take measures to deter, control, or reduce releases to water and land from that source, for example, under the Clean Water Act (33 U.S.C. §§ 1317, 1321, 1342), the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9602, 9604, 9606), and the Resource Conservation and Recovery Act (42 U.S.C. §§ 6903, 6944).

#### **Article 10: Environmentally Sound Interim Storage of Mercury, Other Than Waste Mercury**

The United States has authority under the Comprehensive Environmental Response, Liability, and Compensation Act and Resource Conservation and Recovery Act to ensure that the interim storage of mercury and mercury compounds that are intended for a use allowed under the Convention takes place in an environmentally sound manner. See 42 U.S.C. §§ 9604, 9606, 9607(a); 42 U.S.C. §§ 6903(27), 7003.

#### **Article 11: Mercury wastes**

In the United States, mercury wastes are required to be managed in a manner that protects human health and the environment against adverse effects. The Resource Conservation and Recovery Act establishes requirements for storage, transport, treatment, and disposal or recycling of hazardous wastes and includes a graduated management program that requires different levels of management for waste depending on the hazards it poses. Under applicable regulations, waste containing mercury may be regulated as hazardous because it has been specifically listed as hazardous waste or based on the concentration of leachable mercury in the waste, or if it exhibits another hazardous “characteristic.” 40 C.F.R. Part 261.

High concentration mercury wastes generally must be roasted or retorted and the mercury recovered for reuse before the wastes may be land-disposed. Low concentration mercury wastes may undergo stabilization treatment (to reduce mercury leaching) and can then be land-disposed, although recycling to recover the mercury is allowed as an option. See 40 C.F.R. Part 268. There are additional waste treatment categories for radiologically-contaminated mercury wastes, including contaminated elemental mercury, since this mercury cannot be reclaimed for reuse. See 40 C.F.R. § 268.40. Releases of mercury inconsistent with these regulations would constitute unlawful disposal.

Industrial or commercial mercury-containing wastes that are not regulated as hazardous waste may be disposed of in non-hazardous waste landfills, which are regulated by the 50 U.S. states and subject to federal minimum criteria. See 40 C.F.R. Parts 257-58. Household wastes, including those that may contain mercury (e.g., spent mercury lamps), must be disposed in municipal solid waste landfills. See 40 C.F.R. Part 258.

The Universal Waste Program provides an alternative set of management standards for certain hazardous wastes that are widely generated, and which may be difficult to collect into the hazardous waste management system when they are discarded. The universal waste regulations provide a streamlined framework

for collection and management of specified wastes, including certain mercury-containing equipment and lamps. See 40 C.F.R. Part 273.

In general, export of hazardous wastes from the United States is prohibited unless the exporter has submitted a notification with details of the proposed shipments and received confirmation that the receiving country and any transit countries have approved the export. See 42 U.S.C. § 6938(a). Where an international agreement exists addressing notice, export, and enforcement procedures for the transportation, treatment, storage, and disposal of hazardous wastes, U.S. law allows exports in compliance with such an agreement. See 42 U.S.C. § 6938(a)(2) and (f). In addition, U.S. Department of Transportation hazardous materials regulations have been harmonized with international recommendations on transport of dangerous goods. See 49 C.F.R. Part 172.

#### **Article 12: Contaminated Sites**

The United States has a well-developed framework for identifying, priority-ranking, and remediating abandoned contaminated sites. See 40 C.F.R. Part 300. Regulations under the Comprehensive Environmental Response, Compensation, and Liability Act include detailed guidance for conducting site-specific risk assessments and remediation techniques. In addition, the Resource Conservation and Recovery Act requires owners and operators of facilities managing hazardous waste to clean up any site contamination resulting from current and past practices.

Technical guidance is available on contaminated site assessment, risk assessment, and remediation methods. See <http://www.epa.gov/superfund/policy/index.htm>. In particular, site remediation guidance provides for the first activity after identification of a potentially contaminated site to be a preliminary assessment and site inspection. This process identifies whether there are hazardous substance releases from the site requiring immediate or short term response actions. An emergency response is performed in those instances where there are immediate dangers to human health and the environment. Where an emergency response is not needed, the site may be evaluated for cleanup priority based on site data and the Hazard Ranking System. Once the site cleanup begins, a series of steps to fully assess the site, identify and select appropriate cleanup methods, and implement the site cleanup are performed.

#### **Article 13: Financial Resources and Mechanism**

The United States has been one of the largest donors to the Global Environmental Facility and a permanent member of its governing Council and expects to continue to support the Global Environmental Facility as well as other mercury-related programs through multilateral and bilateral entities that provide financial assistance.

#### **Article 14: Capacity-building, technical assistance and technology transfer**

The United States has provided and expects to continue to provide technical assistance on mercury-related issues through a variety of bilateral and multilateral aid, assistance, and cooperation mechanisms, including programs administered by the U.S. Agency for International Development and the Environmental Protection Agency as well as work through the UNEP Global Mercury Partnership. The United States has supported work under the Partnership through both financial and in-kind contributions.

#### **Article 16: Health aspects**

In the United States, the Centers for Disease Control and Prevention conduct research to provide estimates of U.S. population exposures to mercury and define safe levels of mercury in blood through its National Report on Human Exposure to Environmental Chemicals. The Environmental Protection Agency provides health information on its mercury website. The Environmental Protection Agency and the Food and Drug Administration provide consumer advice on consumption of fish and shellfish. The Occupational Safety and Health Administration regulates occupational exposure to mercury and mercury compounds in its standards, directives and guidelines to establish work-place requirements for minimizing occupational exposure to mercury and mercury compounds, *see, e.g.*, 29 C.F.R. § 1910.1000, and has provided information to the general public about this topic on its website. *See* Safety and Health Topics: Mercury at [www.osha.gov](http://www.osha.gov). And the Agency for Toxic Substances and Disease Registry maintains a toxicological profile on mercury, which includes the examination, summary, and interpretation of available toxicologic information and epidemiologic evaluations on mercury, specifically relating to human exposure to mercury and mercury compounds, and setting targets for mercury exposure reduction. The Agency for Toxic Substances and Disease Registry also develops and disseminates medical management guidelines to aid healthcare professionals involved in emergency response to effectively decontaminate patients, protect themselves and others from contamination, communicate with other involved personnel, efficiently transport patients to a medical facility, and provide competent medical evaluation and treatment to exposed persons.

#### **Article 17: Information exchange**

The United States makes extensive information available on government websites, through direct sharing, and through entities such as the UNEP Global Mercury Partnership. For example, the Environmental Protection Agency has a specific web page dedicated to mercury ([www.epa.gov/mercury](http://www.epa.gov/mercury)) that includes the types of information referenced in this Article as well as links to other governmental and non-governmental information sources. The United States has numerous statutes that authorize information exchange, including the Clean Air Act, 42 U.S.C. § 7403, the Clean Water Act, 33 U.S.C. § 1254, the Toxic Substances Control Act, 15 U.S.C. § 2609, the Resource Conservation and Recovery Act, 42 U.S.C. § 6981, the Comprehensive Environmental Response, Liability, and Compensation Act, 42 U.S.C. §§ 9604(e) and 9660, and the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§ 136o and 136r.

#### **Article 18: Public information, awareness and education**

The Environmental Protection Agency web site described above promotes public awareness of the health and environmental effects of mercury and its compounds. In addition, the Environmental Protection Agency, through its engagement with the UNEP Global Mercury Partnership and related bilateral activities, contributes to education, training, and public awareness efforts around the world. Other agencies of the U.S. Government such as the Agency for Toxic Substances and Disease Registry, the Food and Drug Administration, the Occupational Safety and Health Administration, the National Oceanic and Atmospheric Administration, the Fish and Wildlife Service, the National Park Service, the U.S. Geological Survey, and the National Institute of Standards and Technology also provide relevant information to the public.

The United States has an existing pollutant release and transfer register, the Toxics Release Inventory, that collects and makes publicly available information on the releases, emissions, disposal, and other transfers of mercury and mercury

compounds. See 42 U.S.C. § 11023. Toxics Release Inventory information and mapping capability are publicly accessible at [www.epa.gov/triexplorer](http://www.epa.gov/triexplorer). In addition, the United States uses other mechanisms, such as the National Emissions Inventory and reports under the Clean Water Act and Comprehensive Environmental Response, Compensation, and Liability Act to collect and disseminate information on releases and emissions of mercury. See, e.g., 42 U.S.C. §§ 9602, 9603; 40 C.F.R. § 302.6.

**Article 19: Research, development and monitoring**

In addition to programs described above, relevant information in the United States is collected and disseminated by federal agencies such as the National Oceanic and Atmospheric Administration, the Department of Health and Human Services, the Food and Drug Administration, the Centers for Disease Control and Prevention, the Fish and Wildlife Service, the National Park Service, the Department of Energy, the International Trade Commission, and the U.S. Geological Survey.