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STATEMENT OF THE UNITED STATES OF AMERICA IN RELATION TO THE FACTUAL RECORD ON SUBMISSION ON ENFORCEMENT MATTERS 04-005 (COAL-FIRED POWER PLANTS)

The United States welcomes the publication of the factual record on submission on enforcement matters (SEM) 04-005. The submission raised concerns about mercury releases to water in the United States from coal-fired power plants, and the factual record contains the factual findings of the Commission on Environmental Cooperation (CEC) Secretariat regarding the issue of whether the United States was effectively enforcing certain provisions of the Clean Water Act (CWA) with regard to mercury from some U.S. power plants. However, the scope of the submission, and consequently of the factual record, is limited to a period of time that is now over ten years old. The U.S. therefore wishes, through this statement, to provide more recent information about the significant actions it has taken domestically and internationally to address mercury contamination from coal-fired power plants. The U.S. views this information as supplemental to the information in the factual record, and information in which the public would be interested. Therefore in furtherance of the CEC's interest in promoting transparency, and in providing complete information to the public, the U.S. has asked that that this statement be placed on the CEC website at the same time and in the same location as the factual record.

For most U.S. waters, the great majority of the mercury comes from atmospheric deposition of mercury emissions rather than from releases of mercury directly to water. The deposition is the result of anthropogenic emissions (i.e., emissions due to human activity) from U.S. sources, anthropogenic emissions from other countries, natural sources, and re-emission of previously deposited mercury emissions (both natural and anthropogenic) to water or land. For instance, for most mercury-impaired water bodies in the United States for which U.S. states have developed total maximum daily loads (TMDLs), the contributions from air sources are estimated to be on the order of 98 to 99 percent of the total mercury loadings to those water bodies.

Power plants are currently the dominant emitters in the United States of mercury (about 50 percent) to the atmosphere. To address this issue, on December 16, 2011, the U.S. Environmental Protection Agency (EPA) issued the first ever national standards to reduce mercury and other toxic air pollution from new and existing coal- and oil-fired power plants. The final rule establishing the mercury and air toxics standards (MATS) for coal- and oil-fired power plants will result in preventing about 90 percent of the mercury in coal burned in U.S. power plants from being emitted to the air, and consequently will substantially decrease atmospheric deposition of mercury from U.S. power plants to land and water. The reductions from this rule will be in addition to the substantial mercury emissions reductions from EPA rules addressing other economic sectors, including coal-fired industrial boilers and waste incineration.

In addition, to further reduce mercury and other toxic pollutants in water, in June 2013, EPA proposed new effluent limitations guidelines and standards for steam electric power plants, which currently account for more than half (50 – 60 percent) of all toxic pollutants discharged into the nation's streams, rivers and lakes from industrial facilities regulated in the U.S. under CWA. EPA is currently considering a number of options for these proposed regulations, including options that would establish

numeric effluent limits for mercury in discharges to water from the following sources: fly ash and/or bottom ash transport wastewater; gasification processes wastewater; flue gas desulfurization wastewater; and combustion residual leachate. These options will acknowledge that since mercury is an element which cannot be destroyed but can only be transferred from one medium to another, successful capture of mercury air emissions means that liquid and solid waste streams will include additional amounts of mercury that will need to be managed. EPA estimates that the current base loadings for mercury discharges to water from steam electric power plants are 2,820 lbs per year, and that this rule, once finalized, would annually reduce those mercury discharges by 759 to 2,780 lbs per year -- a reduction of 27% to 99% annually depending on the option selected.

Meanwhile, at the state level in the U.S., several TMDLs for mercury-impaired waters have been developed since the time period covered by the coal-fired power plants submission and factual record. These include statewide TMDLs in North Carolina, Michigan, New Jersey and Florida, as well as the New England multi-state TMDL. Because most of the mercury load is from air emissions sources and distributed across a state, the TMDLs cover multiple mercury-impaired water bodies within a state or region. The TMDLs also describe state and national activities underway and planned to address the mercury sources within a state. Under section 303(d) of the CWA, states and authorized tribes must identify waters for which water quality standards set by a state cannot be met, even after required technology-based controls have been adopted. A TMDL analysis characterizes the relationship between pollutant loadings and waterbody conditions to develop a pollutant load that – when allocated among the various pollutant sources – would allow the impaired water body to meet water quality standards.

Since 2001, EPA and the U.S. Food and Drug Administration (FDA) have conducted an extensive national outreach campaign to communicate risk and benefit messages related to consuming fish , including distributing millions of advisory brochures (translating information into Spanish, Portuguese, Chinese, Vietnamese, Korean, Cambodian, and Hmong), and providing materials to more than 150,000 doctors and healthcare professionals. EPA has also worked closely with state and tribal partners on developing and communicating risk and benefit messages related to consuming fish.

Data from a recent EPA study, *Trends in Blood Mercury Concentrations and Fish Consumption among U.S. Women of Childbearing Age*, *NHANES (1999-2010)*, released on November 20, 2013, show that blood mercury levels in U.S. women of childbearing age dropped 34 percent from a survey conducted in 1999-2000 to follow-up surveys conducted from 2001-2010 . This peer-reviewed study, based on data collected by the U.S. Centers for Disease Control, suggests that women in this category may be making more informed seafood choices, because during the survey period there was very little change in the amount of fish consumed by those surveyed. Thus the decrease in the ratio of mercury intake to fish consumed suggests that women, taking into account the EPA/FDA consumer advisory on methylmercury in fish, may have shifted to eating types of fish with lower mercury concentrations. EPA's study provides a nationwide perspective on trends in mercury levels based mostly on consumption of ocean fish. It does not reflect trends in mercury levels in communities that depend on locally caught fish for subsistence.

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Because mercury is a heavy metal capable of traveling long distances across international boundaries, with subsequent deposition in all countries, including the United States, reduction of mercury emissions and other releases of mercury is necessary at the global level. With this in mind, on November 6, 2013, the Department of State, on behalf of the United States, signed the Minamata Convention on Mercury and deposited the U.S. Instrument of Acceptance, making the United States the first country to agree to become a Party to this Convention.

The Minamata Convention is a new multilateral agreement that addresses human activities that are contributing to widespread global mercury pollution. Implementation of this agreement will help reduce global mercury pollution over the coming decades. The Convention obligates Parties to control and reduce mercury emissions to the air from a number of industrial sources, including power plants, as well as to reduce or eliminate the use of mercury in certain products and industrial processes, and to reduce the supply of mercury by, among other things, ending primary mercury mining. The agreement also calls on governments to address the use of mercury in artisanal and small-scale gold mining, which uses and releases large amounts of mercury and, according to the United Nations Environment Programme (UNEP) is estimated to be the leading source contributor to the global emissions inventory, and the agreement includes provisions to ensure the environmentally sound storage of mercury and of mercury waste.

The United States does not wish to contest the findings in the factual record on SEM 004-005 but thinks it is important to provide to the public information on the steps the United States has taken to limit the amounts of mercury in water from air deposition, and direct discharges into water bodies.