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112TH CONGRESS
1ST SESSION

H. R. 3391

To provide for the establishment of a national mercury monitoring program.

IN THE HOUSE OF REPRESENTATIVES

NOVEMBER 4, 2011

Ms. PINGREE of Maine (for herself, Mr. LEVIN, Mr. KUCINICH, Mr. JACKSON of Illinois, Ms. SCHAKOWSKY, and Mr. WELCH) introduced the following bill; which was referred to the Committee on Energy and Commerce

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A BILL

To provide for the establishment of a national mercury monitoring program.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Comprehensive National Mercury Monitoring Act''.

SEC. 2. FINDINGS.

Congress finds the following:

(1) Mercury is a potent neurotoxin of significant ecological and public health concern.

(2) It is estimated that more than 410,000 children born each year in the United States are exposed to levels of mercury in the womb that are high enough to impair neurological development.

(3) The Centers for Disease Control and Prevention has found that 6 percent of women in the United States of childbearing age have blood mercury levels in excess of values determined to be safe by the Environmental Protection Agency.

(4) Exposure to mercury occurs largely by consumption of contaminated fish. At the same time, fish and shellfish are an important source of dietary protein, and a healthy fishing resource is important to the economy of the United States.

(5) Fish and shellfish contain high-quality protein and other essential nutrients, are low in saturated fat, and contain omega-3 fatty acids. A well-balanced diet that includes a variety of fish and shellfish can contribute to heart health and children's proper growth and development. A national mercury monitoring network will provide consistent scientific data on the status of this vital nutritional and commercial resource.

(6) In many locations, the primary route for mercury input to aquatic ecosystems is atmospheric

emissions, transport, and deposition. Computer models and other assessment tools provide varying effectiveness in predicting mercury concentrations in fish and existing broad-scale data sets are insufficient to test model predictions.

(7) As the Federal Government and State governments advance regulations to curb mercury emissions, such regulations should be evaluated by a nationwide monitoring network that can document whether such regulations are effective.

SEC. 3. MONITORING PROGRAM.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—The Administrator, in consultation with the heads of applicable Federal agencies, shall establish a long-term national-scale mercury monitoring program to track—

(A) long-term trends in atmospheric mercury concentrations and deposition; and

(B) in response to changing mercury emissions over time, mercury levels in—

(i) watersheds and surface waters; and

(ii) fish and wildlife in terrestrial, freshwater, and coastal ecosystems.

(2) MONITORING SITES.—

(A) IN GENERAL.—Not later than 1 year after the date of enactment of this Act and in coordination the Mercury Monitoring Advisory Committee, the Administrator, in consultation with the heads of the applicable Federal agencies, shall select multiple monitoring sites for the mercury monitoring program established under this section representing different ecoregions of the United States.

(B) LOCATIONS.—Locations of monitoring sites for the mercury monitoring program established under this section shall include, national parks, national wildlife refuges, national estuarine reserves, and sensitive ecological areas in which substantive changes are expected from reductions in domestic mercury emissions. Such monitoring sites shall be co-located with sites from other long-term environmental monitoring programs, as practicable, including sites associated with the National Ecological Observatory Network, Long Term Ecological Research Network, and the National Atmospheric Deposition Program.

(3) MONITORING PROTOCOLS.—Not later than 1 year after the date of enactment of this Act and

in coordination with the Mercury Monitoring Advisory Committee, the Administrator shall establish and publish standardized measurement protocols for the mercury monitoring program established under this section, including data assurance and quality standards consistent with standards developed by the Federal Geographic Data Committee for use by Federal agencies and other data gathering entities.

(4) DATA COLLECTION AND DISTRIBUTION.—Not later than 1 year after the date of enactment of this Act and in coordination with the Mercury Monitoring Advisory Committee, the Administrator shall establish a centralized database for existing and newly collected environmental mercury data that can be freely accessed online once data assurance and quality standards established by the Administrator under paragraph (3) are met.

(b) AIR AND WATERSHEDS.—The mercury monitoring program established under this section shall monitor long-term changes in mercury levels in air and watersheds at sites selected under subsection (a)(2), including through—

(1) the measurement and recording of wet, and estimation of dry, mercury deposition, mercury flux, and mercury export;

(2) the measurement and recording of the level of mercury reemitted from aquatic and terrestrial environments into the atmosphere; and

(3) the measurement of sulfur species and ancillary measurements at a portion of the monitoring sites to fully understand the cycling of mercury through the ecosystem.

(c) WATER AND SOIL CHEMISTRY.—The mercury monitoring program established under this section shall monitor long-term changes in mercury and methylmercury levels in water and soil at sites selected under subsection (a)(2), including through—

(1) extraction and analysis of sediment cores;

(2) measurement and recording of total mercury and methylmercury concentration, and percent methylmercury in surface sediments;

(3) measurement and recording of total mercury and methylmercury concentration in surface water; and

(4) measurement and recording of total mercury and methylmercury concentrations throughout the water column and sediments.

(d) AQUATIC AND TERRESTRIAL ORGANISMS.—The mercury monitoring program established under this section shall monitor long-term changes in mercury and

methylmercury levels in the aquatic and terrestrial organisms at sites selected under subsection (a)(2), including through—

(1) measurement and recording of total mercury and methylmercury concentrations in zooplankton and other invertebrates;

(2) measurement and recording of total mercury and methylmercury concentrations in yearling fish;

(3) measurement and recording of total mercury and methylmercury concentrations in commercially, recreationally, or conservation relevant fish;

(4) measurement and recording of total mercury concentrations in selected insect- and fish-eating birds; and

(5) measurement and recording of total mercury concentrations in selected insect- and fish-eating mammals.

SEC. 4. ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—There is established a scientific advisory committee, to be known as the ''Mercury Monitoring Advisory Committee'', to advise the Administrator and the heads of the applicable Federal agencies on the establishment, site selection, measurement, recording protocols, data integration, standardization protocols,

reporting, funding, and operation of the national mercury monitoring program established under this Act.

(b) MEMBERSHIP.—The Mercury Monitoring Advisory Committee shall consist of scientists who are not employees of the Federal Government, including—

(1) 3 scientists appointed by the Administrator;

(2) 2 scientists appointed by the Director of the United States Fish and Wildlife Service;

(3) 2 scientists appointed by the Director of the United States Geological Survey;

(4) 2 scientists appointed by the Director of the National Park Service; and

(5) 2 scientists appointed by the Administrator of the National Oceanic and Atmospheric Administration.

SEC. 5. REPORTS.

Not later than 2 years after the date of enactment of this Act, and every 2 years thereafter, the Administrator shall transmit to Congress a report on the mercury monitoring program established under this Act, including trend data. Once every 4 years, such a report shall include an assessment of the reduction in mercury deposition rates that must be achieved in order to prevent adverse human and ecological effects.

SEC. 6. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to carry out this Act—

(1) for fiscal year 2013, $37,000,000;

(2) for fiscal year 2014, $29,000,000; and

(3) for fiscal year 2015, $29,000,000.

SEC. 7. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Administrator of the Environmental Protection Agency.

(2) APPLICABLE FEDERAL AGENCY.—The term ''applicable Federal agency'' may include the United States Fish and Wildlife Service, the United States Geological Survey, the National Park Service, the National Oceanic and Atmospheric Administration, and any other Federal agency, bureau, or department the Administrator determines relevant.

(3) ECOREGION.—The term ''ecoregion'' means a large, as determined by the Administrator, area of land and water that contains a geographically distinct assemblage of natural communities, including similar land forms, climate, ecological processes, and vegetation.

(4) MERCURY EXPORT.—The term ''mercury export'' means mercury flux from a watershed to the

corresponding water body, or from one water body to another (such as a lake to a river), generally expressed as mass per unit time.

(5) MERCURY FLUX.—The term ''mercury flux'' means the rate of transfer of mercury between ecosystem components (such as between water and air), or between portions of ecosystem components, expressed in terms of mass per unit time or mass per unit area per time.

(6) MERCURY MONITORING ADVISORY COMMITTEE.—The term ''Mercury Monitoring Advisory Committee'' means the Mercury Monitoring Advisory Committee established under section 4.

(7) SURFACE SEDIMENT.—The term ''surface sediment'' means sediment in the uppermost 2 centimeters of a lakebed or riverbed.

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