I

110TH CONGRESS
1ST SESSION

H. R. 1533

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

IN THE HOUSE OF REPRESENTATIVES

MARCH 15, 2007

Mr. ALLEN 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 Program Establishment Act''.

SEC. 2. FINDINGS.

Congress finds the following:

(1) Mercury is a potent neurotoxin of significant ecological and public health concern. Exposure to mercury occurs largely by consumption of contaminated fish. Children and women of childbearing

age who consume large amounts of fish are at high risk of adverse effects. It is estimated that 200,000 to 400,000 children born each year in the United States have been exposed to mercury levels in their mothers' wombs high enough to impair neurological development. The Centers for Disease Control and Prevention have found that eight percent of the women in the United States of childbearing age have blood mercury levels in excess of values deemed safe by the Environmental Protection Agency.

(2) As of 2004, fish consumption advisories due to mercury contamination have been issued for 44 States, including 21 statewide advisories for freshwaters and 12 statewide advisories for coastal waters. These advisories represent more than 52,000 square kilometers of lakes and 1,230,000 kilometers of rivers. Yet, fish and shellfish are an important source of dietary protein, and a healthy fishing resource is important to the economy. The extent of fish consumption advisories underscores the extensive human and ecological health risk posed by mercury pollution.

(3) In most locations, the primary route for mercury input to aquatic ecosystems is by atmospheric transport and deposition. Mercury's inter-

action with the environment and bioaccumulation in biota are not fully understood. Computer models and other assessment tools predict varying effectiveness in reducing mercury concentrations in fish, and no broad-scale data sets exist to test model predictions.

(4) In September 2003, the Society of Environmental Toxicology and Chemistry convened a workshop of 32 mercury scientists to develop a system to measure and document changes resulting from reductions in mercury emissions in the United States. The resulting plan is documented in the book ''State of Science for Mercury Effects: Assessment for Aquatic and Terrestrial Environments'', published in 2007.

(5) On January 1, 2005, ''Monitoring the Response to Changing Mercury Deposition'' was published in the periodical Environmental Science and Technology. The article proposed a ''holistic, multimedia, long-term mercury monitoring program''.

(6) Many regulations limiting mercury emissions have either gone into effect or will soon be enacted, but scientists are not adequately measuring the environmental benefits of reduced mercury emissions. As governments advance regulations, govern-

ments should document whether their rules are effective.

(7) On May 15, 2006, the Office of Inspector General of the Environmental Protection Agency issued a report entitled, ''Monitoring Needed to Assess Impact of EPA's Clean Air Mercury Rule (CAMR) on Potential Hotspots'', Report No. 2006–P–0025, which states, in part: ''Without field data from an improved monitoring network, EPA's ability to advance mercury science will be limited and 'utility-attributable' hotspots that pose health risks may occur and go undetected'' and ''We recommend that EPA develop and implement a mercury monitoring plan to (1) assess the impact of CAMR, if adopted, on mercury deposition and fish tissue; and (2) evaluate and refine mercury estimation tools and models''.

(8) On January 4, 2007, ''Contamination in Remote Forest and Aquatic Ecosystems in the Northeastern U.S.: Sources, Transformations and Management Options'' and ''Biological Mercury Hotspots in the Northeastern U.S. and Southeastern Canada'' were published in the journal BioScience. The authors identified five biological mercury hotspots and nine areas of concern in the north-

eastern United States and southeastern Canada associated primarily with atmospheric mercury emissions and deposition. They further located an area of particularly high mercury deposition adjacent to a coal-fired electric utility in southern New Hampshire. The authors of the studies concluded that local impacts from mercury emissions should be closely monitored in order to assess the impact of State and Federal policies.

SEC. 3. MONITORING PROGRAM.

(a) ESTABLISHMENT.—The Administrator of the Environmental Protection Agency, in consultation with the United States Fish and Wildlife Service, the United States Geological Survey, the Forest Service, the National Park Service, and the National Oceanic and Atmospheric Administration, shall establish a national scale mercury monitoring program. For purposes of such program, the Administrator of the Environmental Protection Agency shall select multiple monitoring sites in ecoregions of the United States.

(b) AIR AND WATERSHED.—The program under this section shall monitor long-term changes in mercury levels in the air and watershed, including—

(1) at locations selected under subsection (a) that the Administrator of the Environmental Protec-

tion Agency determines appropriate, measuring and recording wet mercury deposition;

(2) at a portion of such locations that the Administrator of the Environmental Protection Agency determines is appropriate, measuring and recording atmospheric mercury speciation and estimates of the dry deposition of mercury;

(3) at a portion of such locations that the Administrator of the Environmental Protection Agency determines is appropriate, measuring and recording mercury flux and mercury export; and

(4) measuring and recording the level of mercury re-emitted from aquatic and terrestrial environments into the atmosphere.

(c) WATER AND SOIL CHEMISTRY.—The program under this section shall monitor mercury levels in water and soil chemistry, including—

(1) at a portion of all locations selected under subsection (a) that the Administrator of the Environmental Protection Agency determines is appropriate, extracting and analyzing sediment cores;

(2) measuring and recording total mercury concentration, methyl mercury concentration, and percent methyl mercury in surface sediments;

(3) measuring and recording total mercury concentration and methyl mercury concentration in surface water; and

(4) at a portion of such locations that the Administrator of the Environmental Protection Agency determines is appropriate, measuring and recording total mercury concentrations and methyl mercury concentrations throughout the water column.

(d) AQUATIC PLANTS AND ANIMALS.—The program under this section shall monitor mercury levels in plants and animals, including—

(1) measuring and recording methyl mercury levels in yearling fish;

(2) measuring and recording mercury levels, and other scientific data relevant to assessing the health of the fish population, in commercially or recreationally important fish;

(3) measuring and recording mercury levels in the appropriate tissue in reptiles, amphibians, birds, and mammals; and

(4) at a portion of all locations selected under subsection (a) that the Administrator of the Environmental Protection Agency determines is appropriate, measuring and recording mercury levels in

phytoplankton, algae, zooplankton, and benthic invertebrates.

(e) SELECTION OF MONITORING SITES.—The Administrator of the Environmental Protection Agency shall, not later than 12 months after the date of enactment of this Act and in coordination with the Scientific Advisory Committee, recommend appropriate sites for monitoring under the program established under this section.

SEC. 4. SCIENTIFIC ADVISORY COMMITTEE.

(a) ESTABLISHMENT.—There shall be established a Scientific Advisory Committee to advise the Administrator of the Environmental Protection Agency on the establishment, site selection, and operation of the national mercury monitoring program under this Act.

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

(1) 3 scientists appointed by the Administrator of the Environmental Protection Agency;

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

(3) 2 scientists appointed by the Director of the National Park Service;

(4) 2 scientists appointed by the Director of the Forest Service;

(5) 2 scientists appointed by the Director of the United States Geological Survey; and

(6) 2 scientists appointed by the Administrator of the National Oceanic and Atmospheric Administration.

SEC. 5. REPORTS AND PUBLIC DISCLOSURE.

(a) REPORTS.—The Administrator of the Environmental Protection Agency shall transmit to Congress a report on the program under this Act not later than 2 years after the date of enactment of this Act, and every 2 years thereafter. Once every 4 years, such report shall include an assessment of the reduction in mercury deposition rates that must be achieved in order to prevent adverse ecological effects.

(b) AVAILABILITY OF DATA.—All data obtained pursuant to this Act shall be made available to the public.

SEC. 6. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated for carrying out this Act—

(1) for fiscal year 2008—

(A) to the Environmental Protection Agency $7,000,000;

(B) to the United States Geological Survey $4,500,000;

(C) to the Fish and Wildlife Service $4,500,000; and

(D) to the National Oceanic and Atmospheric Administration $2,000,000;

(2) for fiscal year 2009—

(A) to the Environmental Protection Agency $5,000,000;

(B) to the United States Geological Survey $3,000,000;

(C) to the Fish and Wildlife Service $3,000,000; and

(D) to the National Oceanic and Atmospheric Administration $1,000,000;

(3) for fiscal year 2010—

(A) to the Environmental Protection Agency $5,250,000;

(B) to the United States Geological Survey $3,250,000;

(C) to the Fish and Wildlife Service $3,250,000; and

(D) to the National Oceanic and Atmospheric Administration $1,250,000; and

(4) such sums as may be necessary for each of fiscal years 2011 through 2013 to the Environmental Protection Agency, the United States Geo-

logical Survey, the Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration.

SEC. 7. DEFINITIONS.

For purposes of this Act:

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

(2) MERCURY EXPORT.—The term ''mercury export'' means mercury flux from a watershed to the corresponding water body, or from one water body to another (e.g. a lake to a river), generally expressed as mass per unit time.

(3) MERCURY FLUX.—The term ''mercury flux'' means the rate of transfer of mercury between ecosystem components (e.g. 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.

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

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