106TH CONGRESS
1ST SESSION

S. 673

To amend the Clean Air Act to establish requirements concerning the operation of fossil fuel-fired electric utility steam generating units, commercial and industrial boiler units, solid waste incineration units, medical waste incinerators, hazardous waste combustors, chlor-alkali plants, and Portland cement plants to reduce emissions of mercury to the environment, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 19, 1999

Mr. LEAHY (for himself and Ms. SNOWE) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Clean Air Act to establish requirements concerning the operation of fossil fuel-fired electric utility steam generating units, commercial and industrial boiler units, solid waste incineration units, medical waste incinerators, hazardous waste combustors, chlor-alkali plants, and Portland cement plants to reduce emissions of mercury to the environment, and for other purposes.

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

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''Omnibus Mercury Emissions Reduction Act of 1999''.

(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

SEC. 2. FINDINGS AND PURPOSES.

(a) FINDINGS.—Congress finds that—

(1) on the basis of available scientific and medical evidence, exposure to mercury and mercury compounds (collectively referred to in this Act as ''mercury'') is of concern to human health and the environment;

(2) pregnant women and their fetuses, women of childbearing age, children, and individuals who subsist primarily on fish, are most at risk for mercury-related health impacts such as neurotoxicity;

(3) although exposure to mercury occurs most frequently through consumption of mercury-contaminated fish, such exposure can also occur through—

(A) ingestion of drinking water, and food sources other than fish, that are contaminated with methyl mercury;

(B) dermal uptake through soil and water; and

(C) inhalation of contaminated air;

(4) on the basis of the report entitled ''Mercury Study Report to Congress'' and submitted by the Environmental Protection Agency under section 112(n)(1)(B) of the Clean Air Act (42 U.S.C. 7412(n)(1)(B)), the major sources of mercury emissions in the United States are, in descending order of volume of emissions—

(A) fossil fuel-fired electric utility steam generating units;

(B) solid waste incineration units;

(C) coal- and oil-fired commercial and industrial boiler units;

(D) medical waste incinerators;

(E) hazardous waste combustors;

(F) chlor-alkali plants; and

(G) Portland cement plants;

(5)(A) the Environmental Protection Agency report described in paragraph (4), in conjunction with available scientific knowledge, supports a plausible link between mercury emissions from anthropogenic combustion and industrial sources and mercury concentrations in air, soil, water, and sediments;

(B) the Environmental Protection Agency has concluded that the geographical areas that have the highest annual rate of deposition of mercury in all forms are—

(i) the southern Great Lakes and Ohio River Valley;

(ii) the Northeast and southern New England; and

(iii) scattered areas in the South, with the most elevated deposition occurring in the Miami and Tampa areas and 2 areas in northeast Texas; and

(C) analysis conducted before the date of the Environmental Protection Agency report demonstrates that mercury is being deposited into the waters of Canada;

(6)(A) the Environmental Protection Agency report described in paragraph (4) supports a plausible link between mercury emissions from anthropogenic

combustion and industrial sources and concentrations of methyl mercury in freshwater fish;

(B) in 1997, 39 States issued health advisories that warned the public about consuming mercury-tainted fish, as compared to 27 States that issued such advisories in 1993;

(C) the total number of mercury advisories increased from 899 in 1993 to 1,675 in 1996, an increase of 86 percent; and

(D) the United States and Canada have agreed on a goal of virtual elimination of mercury from the transboundary waters of the 2 countries;

(7) the presence of mercury in consumer products is of concern in light of the health consequences associated with exposure to mercury;

(8) the presence of mercury in certain batteries and fluorescent light bulbs is of special concern, particularly in light of the substantial quantities of used batteries and fluorescent light bulbs that are discarded annually in the solid waste stream and the potential for environmental and health consequences associated with land disposal, composting, or incineration of the batteries and light bulbs; and

(9) a comprehensive study of the use of mercury by the Department of Defense would signifi-

cantly further the goal of reducing mercury pollution.

(b) PURPOSES.—The purposes of this Act are—

(1) to greatly reduce the quantity of mercury entering the environment by controlling air emissions of mercury from fossil fuel-fired electric utility steam generating units, coal- and oil-fired commercial and industrial boiler units, solid waste incineration units, medical waste incinerators, hazardous waste combustors, chlor-alkali plants, and Portland cement plants;

(2) to reduce the quantity of mercury entering solid waste landfills, incinerators, and composting facilities by promoting recycling or proper disposal of used batteries, fluorescent light bulbs, and other products containing mercury;

(3) to increase the understanding of the volume and sources of mercury emissions throughout North America;

(4) to promote efficient and cost-effective methods of controlling mercury emissions;

(5) to promote permanent, safe, and stable disposal of mercury recovered through coal cleaning, flue gas control systems, and other methods of mercury pollution control;

(6) to reduce the use of mercury in cases in which technologically and economically feasible alternatives are available;

(7) to educate the public concerning the collection, recycling, and proper disposal of mercury-containing products;

(8) to increase public knowledge of the sources of mercury exposure and the threat to public health, particularly the threat to the health of pregnant women and their fetuses, women of childbearing age, children, and individuals who subsist primarily on fish;

(9) to significantly decrease the threat to human health and the environment posed by mercury; and

(10) to ensure that the health of sensitive populations, whether in the United States, Canada, or Mexico, is protected, with an adequate margin of safety, against adverse health effects caused by mercury.

SEC. 3. MERCURY EMISSION STANDARDS FOR FOSSIL FUEL-FIRED ELECTRIC UTILITY STEAM GENERATING UNITS.

Section 112 of the Clean Air Act (42 U.S.C. 7412) is amended—

(1) by redesignating subsection (s) as subsection (x); and

(2) by inserting after subsection (r) the following:

''(s) MERCURY EMISSION STANDARDS FOR ELECTRIC UTILITY STEAM GENERATING UNITS.—

''(1) IN GENERAL.—

''(A) REGULATIONS.—Not later than 180 days after the date of enactment of this subparagraph, the Administrator shall promulgate regulations to establish standards for the emission of mercury and mercury compounds (collectively referred to in this subsection as 'mercury') applicable to existing and new electric utility steam generating units.

''(B) PERMIT REQUIREMENT.—Not later than 2 years after the date of enactment of this subparagraph, each electric utility steam generating unit shall have an enforceable permit issued under title V that complies with this subsection.

''(C) PROCEDURES AND SCHEDULES FOR COMPLIANCE WITH STANDARDS.—Each electric utility steam generating unit shall achieve compliance with the mercury emission standards es-

tablished under subparagraph (A) in accordance with the procedures and schedules established under subsection (i).

''(2) STANDARDS AND METHODS.—

''(A) MINIMUM REQUIRED EMISSION REDUCTION.—Subject to subparagraph (C), the emission standards established under paragraph (1)(A) shall require that each electric utility steam generating unit reduce its annual poundage of mercury emitted, as calculated under subparagraph (B), below its mercury emission baseline, as calculated under paragraph (3)(D), by not less than 95 percent.

''(B) CALCULATION OF ANNUAL POUNDAGE OF MERCURY EMITTED.—

''(i) IN GENERAL.—For each electric utility steam generating unit (referred to in this subparagraph as a 'unit') and each calendar year, the Administrator shall calculate the poundage of mercury emitted per unit for the calendar year, which shall be equal to the product obtained by multiplying—

''(I) the fuel consumption determined under clause (ii) for the unit for the calendar year; by

''(II) the average mercury content determined under clause (iii) for the unit for the calendar year.

''(ii) FUEL CONSUMPTION.—The fuel consumption for a unit shall be equal to the annual average quantity of millions of British thermal units (referred to in this subparagraph as 'mmBtu's') consumed by the unit during the calendar year, as submitted to the Secretary of Energy on Department of Energy Form 767.

''(iii) AVERAGE MERCURY CONTENT.—

''(I) SPECIFIC DATA.—The average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy that characterize the average mercury content of the fuel consumed by the unit during the calendar year.

''(II) ESTIMATED DATA.—If specific mercury content data from the Department of the Interior and the Department of Energy are not available, the average mercury content shall be estimated using the average mercury content of fossil fuel from mines or wells in the geographic region of each mine or well that supplies the unit.

''(C) EMISSION TRADING WITHIN A GENERATING STATION.—

''(i) IN GENERAL.—For the purpose of this subsection, taking into consideration the cost of achieving the emission reduction, the Administrator may allow emission trading among the electric utility steam generating units contained in a power generating station at a single site if the aggregate annual reduction from all such units at the power generating station is not less than 95 percent.

''(ii) UNDERLYING DATA.—In carrying out clause (i), the Administrator

shall use mercury emission data calculated under paragraph (3)(D).

''(D) CONTROL METHODS.—For the purpose of achieving compliance with the emission standards established under paragraph (1)(A), the Administrator shall authorize methods of control of mercury emissions, including measures that—

''(i) reduce the volume of, or eliminate emissions of, mercury through a process change, substitution of material or fuel, or other method;

''(ii) enclose systems or processes to eliminate mercury emissions;

''(iii) collect, capture, or treat mercury emissions when released from a process, stack, storage, or fugitive emission point;

''(iv) consist of design, equipment, work practice, or operational standards (including requirements for operator training or certification) in accordance with subsection (h); or

"(v) consist of a combination of the measures described in clauses (i) through (iv).

"(3) PERMIT REQUIREMENTS AND CONDITIONS.—

"(A) IN GENERAL.—Each permit issued in accordance with paragraph (1)(B) shall include—

"(i) enforceable mercury emission standards;

"(ii) a schedule of compliance;

"(iii) a requirement that the permittee submit to the permitting authority, not less often than every 90 days, the results of any required monitoring; and

"(iv) such other conditions as the Administrator determines are necessary to ensure compliance with this subsection and each applicable implementation plan under section 110.

"(B) MONITORING AND ANALYSIS.—

"(i) PROCEDURES AND METHODS.—The regulations promulgated by the Administrator under paragraph (1)(A) shall prescribe procedures and methods for—

''(I) monitoring and analysis for mercury; and

''(II) determining compliance with this subsection.

''(ii) INFORMATION.—Application of the procedures and methods shall result in reliable and timely information for determining compliance.

''(iii) OTHER REQUIREMENTS.—

''(I) IN GENERAL.—The requirements for monitoring and analysis under this subparagraph shall include—

''(aa) such requirements that result in a representative determination of mercury in ash and sludge; and

''(bb) such combination of requirements for continuous or other reliable and representative emission monitoring methods that results in a representative determination of mercury in fuel as received by each electric utility steam generating unit;

as are requisite to provide accurate and reliable data for determining baseline and controlled emissions of mercury from each electric utility steam generating unit.

"(II) MINIMUM REQUIREMENT.—If, under subclause (I)(bb), the Administrator does not require an electric utility steam generating unit to use direct emission monitoring methods, the requirements under subclause (I)(bb) shall, at a minimum, result in representative determinations of mercury in fuel as received by the electric utility steam generating unit at such frequencies as are sufficient to determine whether compliance with this subsection is continuous.

"(iv) EFFECT ON OTHER LAW.—Nothing in this subsection affects any continuous emission monitoring requirement of title IV or any other provision of this Act.

"(C) INSPECTION, ENTRY, MONITORING, CERTIFICATION, AND REPORTING.—

"(i) IN GENERAL.—Each permit issued in accordance with paragraph (1)(B) shall specify inspection, entry, monitoring, compliance certification, and reporting requirements to ensure compliance with the permit terms and conditions.

"(ii) CONFORMITY WITH OTHER REGULATIONS.—The monitoring and reporting requirements shall conform to each applicable regulation under subparagraph (B).

"(iii) SIGNATURE.—Each report required under clause (i) and subparagraph (B)(iii) shall be signed by a responsible official of the electric utility steam generating unit, who shall certify the accuracy of the report.

"(D) MERCURY EMISSION BASELINE.—

"(i) IN GENERAL.—For each electric utility steam generating unit (referred to in this subparagraph as a 'unit'), the Administrator shall calculate the baseline annual average poundage of mercury emitted per unit, which shall be equal to the product obtained by multiplying—

"(I) the baseline fuel consumption determined under clause (ii) for the unit; by

"(II) the baseline average mercury content determined under clause (iii) for the unit.

"(ii) BASELINE FUEL CONSUMPTION.—

"(I) UNITS IN COMMERCIAL OPERATION BEFORE JANUARY 1, 1996.—For each unit that began commercial operation before January 1, 1996, the baseline fuel consumption shall be equal to the annual average quantity of millions of British thermal units (referred to in this subparagraph as 'mmBtu's') consumed by the unit during the period of calendar years 1996, 1997, and 1998, as submitted annually to the Secretary of Energy on Department of Energy Form 767 (referred to in this clause as 'Form 767').

"(II) UNITS BEGINNING COMMERCIAL OPERATION BETWEEN JANU-

ARY 1, 1996, AND 180 DAYS AFTER ENACTMENT.—Subject to subclause (III), for each unit that begins commercial operation between January 1, 1996, and the date that is 180 days after the date of enactment of this subparagraph, the baseline fuel consumption shall be based on the annual average of the fuel use data submitted on Form 767 for each full year of commercial operation that begins on or after January 1, 1996.

''(III) UNITS IN COMMERCIAL OPERATION LESS THAN 1 YEAR AS OF 180 DAYS AFTER ENACTMENT.—For each unit that has not been in commercial operation for at least 1 year as of the date that is 180 days after the date of enactment of this subparagraph, the Administrator may determine an interim baseline fuel consumption by—

''(aa) extrapolating from monthly fuel use data available for the unit; or

"(bb) assigning a baseline fuel consumption based on the annual average of the fuel use data submitted on Form 767 for other units that are of similar design and capacity.

"(IV) UNITS BEGINNING COMMERCIAL OPERATION MORE THAN 180 DAYS AFTER ENACTMENT.—For each unit that begins commercial operation more than 180 days after the date of enactment of this subparagraph, the application for a permit issued in accordance with paragraph (1)(B) for the unit shall include an initial baseline fuel consumption that is based on the maximum design capacity for the unit.

"(V) RECALCULATION AFTER EXTENDED PERIOD OF COMMERCIAL OPERATION.—At such time as a unit described in any of subclauses (II) through (IV) has submitted fuel use data for 3 consecutive years of commercial operation on Form 767, the

Administrator shall recalculate the baseline fuel consumption and make modifications, as necessary, to the mercury emission limitations contained in the permit for the unit issued in accordance with paragraph (1)(B).

''(iii) BASELINE AVERAGE MERCURY CONTENT.—

''(I) UNITS IN COMMERCIAL OPERATION BEFORE JANUARY 1, 1996.—In the case of a unit described in clause (ii)(I), the baseline average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy that characterize the average mercury content of the fuel consumed by the unit during the 3-year period described in clause (ii)(I).

''(II) UNITS BEGINNING COMMERCIAL OPERATION BETWEEN JANUARY 1, 1996, AND 180 DAYS AFTER EN-

ACTMENT.—In the case of a unit described in clause (ii)(II), the baseline average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy that characterize the average mercury content of the fuel consumed by the unit during each full year of commercial operation that begins on or after January 1, 1996.

''(III) UNITS IN COMMERCIAL OPERATION LESS THAN 1 YEAR AS OF 180 DAYS AFTER ENACTMENT.—In the case of a unit described in clause (ii)(III), the baseline average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy that characterize the average mercury content of the fuel consumed by the unit—

"(aa) during the months used for the extrapolation under clause (ii)(III); or

"(bb) based on the average mercury content of fuel consumed by other units that are of similar design and capacity.

"(IV) UNITS BEGINNING COMMERCIAL OPERATION MORE THAN 180 DAYS AFTER ENACTMENT.—In the case of a unit described in clause (ii)(IV), the baseline average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy, or data submitted by the unit under subparagraph (B)(iii), that characterize the average mercury content of the fuel consumed by the unit based on the maximum design capacity for the unit.

"(V) ESTIMATED DATA.—If mercury content data described in clauses

(I) through (IV) are not available, the baseline average mercury content shall be estimated using the average mercury content of fossil fuel from mines or wells in the geographic region of each mine or well that supplies the unit.

''(4) DISPOSAL OF MERCURY CAPTURED THROUGH EMISSION CONTROLS.—

''(A) IN GENERAL.—

''(i) CAPTURED OR RECOVERED MERCURY.—The regulations promulgated by the Administrator under paragraph (1)(A) shall ensure that mercury that is captured or recovered through the use of an emission control, coal cleaning, or another method is disposed of in a manner that ensures that—

''(I) the hazards from mercury are not transferred from 1 environmental medium to another; and

''(II) there is no release of mercury into the environment (as the terms 'release' and 'environment' are defined in section 101 of the Com-

prehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601)).

''(ii) MERCURY-CONTAINING SLUDGES AND WASTES.—The regulations promulgated by the Administrator under paragraph (1)(A) shall ensure that mercury-containing sludges and wastes are handled and disposed of in accordance with all applicable Federal and State laws (including regulations).

''(B) RESEARCH PROGRAM.—To promote permanent and cost-effective disposal of mercury from electric utility steam generating units, the Administrator shall establish a program of long-term research to develop and disseminate information on methods and techniques such as separating, solidifying, recycling, and encapsulating mercury-containing waste so that mercury does not volatilize, migrate to ground water or surface water, or contaminate the soil.

''(5) OTHER REQUIREMENTS.—An emission standard or other requirement promulgated under this subsection does not diminish or replace any re-

quirement of a more stringent emission limitation or other applicable requirement established under this Act or a standard issued under State law.

''(6) PUBLIC REPORTING OF DATA PERTAINING TO EMISSIONS OF MERCURY.—

''(A) IN GENERAL.—The Administrator shall annually make available to the public, through 1 or more published reports and 1 or more forms of electronic media, facility-specific mercury emission data for each electric utility steam generating unit.

''(B) SOURCE OF DATA.—The emission data shall be taken from the monitoring and analysis reports submitted under paragraph (3)(C).''.

SEC. 4. MERCURY EMISSION STANDARDS FOR COAL- AND OIL-FIRED COMMERCIAL AND INDUSTRIAL BOILER UNITS.

Section 112 of the Clean Air Act (as amended by section 3) is amended by inserting after subsection (s) the following:

''(t) MERCURY EMISSION STANDARDS FOR COAL- AND OIL-FIRED COMMERCIAL AND INDUSTRIAL BOILER UNITS.—

''(1) IN GENERAL.—

''(A) REGULATIONS.—Not later than 180 days after the date of enactment of this subparagraph, the Administrator shall promulgate regulations to establish standards for the emission of mercury and mercury compounds (collectively referred to in this subsection as 'mercury') applicable to existing and new coal- and oil-fired commercial and industrial boiler units that have a maximum design heat input capacity of 10 mmBtu per hour or greater.

''(B) PERMIT REQUIREMENT.—Not later than 2 years after the date of enactment of this subparagraph, each coal- or oil-fired commercial or industrial boiler unit shall have an enforceable permit issued under title V that complies with this subsection.

''(C) PROCEDURES AND SCHEDULES FOR COMPLIANCE WITH STANDARDS.—Each coal- or oil-fired commercial or industrial boiler unit shall achieve compliance with the mercury emission standards established under subparagraph (A) in accordance with the procedures and schedules established under subsection (i).

''(2) STANDARDS AND METHODS.—

''(A) MINIMUM REQUIRED EMISSION REDUCTION.—Subject to subparagraph (C), the emission standards established under paragraph (1)(A) shall require that each coal- or oil-fired commercial or industrial boiler unit reduce its annual poundage of mercury emitted, as calculated under subparagraph (B), below its mercury emission baseline, as calculated under paragraph (3)(D), by not less than 95 percent.

''(B) CALCULATION OF ANNUAL POUNDAGE OF MERCURY EMITTED.—

''(i) IN GENERAL.—For each coal- or oil-fired commercial or industrial boiler unit (referred to in this subparagraph as a 'unit') and each calendar year, the Administrator shall calculate the poundage of mercury emitted per unit for the calendar year, which shall be equal to the product obtained by multiplying—

''(I) the fuel consumption determined under clause (ii) for the unit for the calendar year; by

''(II) the average mercury content determined under clause (iii) for the unit for the calendar year.

''(ii) FUEL CONSUMPTION.—The fuel consumption for a unit shall be equal to the annual average quantity of millions of British thermal units (referred to in this subparagraph as 'mmBtu's') consumed by the unit during the calendar year, as submitted to the Secretary of Energy on Department of Energy Forms EIA–3 and EIA–846 (A,B,C).

''(iii) AVERAGE MERCURY CONTENT.—

''(I) SPECIFIC DATA.—The average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy (as submitted to the Secretary of Energy on Department of Energy Form EIA–3A) that characterize the average mercury content of the fuel consumed by the unit during the calendar year.

''(II) ESTIMATED DATA.—If specific mercury content data from the Department of the Interior and the

Department of Energy are not available, the average mercury content shall be estimated using the average mercury content of coal mined or oil produced in the geographic region of each mine or well that supplies the unit.

''(C) EMISSION TRADING WITHIN A FACILITY.—

''(i) IN GENERAL.—For the purpose of this subsection, taking into consideration the cost of achieving the emission reduction, the Administrator may allow emission trading among the coal- and oil-fired commercial and industrial boiler units contained in a facility at a single site if the aggregate annual reduction from all such units at the facility is not less than 95 percent.

''(ii) UNDERLYING DATA.—In carrying out clause (i), the Administrator shall use mercury emission data calculated under paragraph (3)(D).

''(D) CONTROL METHODS.—For the purpose of achieving compliance with the emission

standards established under paragraph (1)(A), the Administrator shall authorize methods of control of mercury emissions, including measures that—

"(i) reduce the volume of, or eliminate emissions of, mercury through a process change, substitution of material or fuel, or other method;

"(ii) enclose systems or processes to eliminate mercury emissions;

"(iii) collect, capture, or treat mercury emissions when released from a process, stack, storage, or fugitive emission point;

"(iv) consist of design, equipment, work practice, or operational standards (including requirements for operator training or certification) in accordance with subsection (h); or

"(v) consist of a combination of the measures described in clauses (i) through (iv).

"(3) PERMIT REQUIREMENTS AND CONDITIONS.—

"(A) IN GENERAL.—Each permit issued in accordance with paragraph (1)(B) shall include—

"(i) enforceable mercury emission standards;

"(ii) a schedule of compliance;

"(iii) a requirement that the permittee submit to the permitting authority, not less often than every 90 days, the results of any required monitoring; and

"(iv) such other conditions as the Administrator determines are necessary to ensure compliance with this subsection and each applicable implementation plan under section 110.

"(B) MONITORING AND ANALYSIS.—

"(i) PROCEDURES AND METHODS.—The regulations promulgated by the Administrator under paragraph (1)(A) shall prescribe procedures and methods for—

"(I) monitoring and analysis for mercury; and

"(II) determining compliance with this subsection.

"(ii) INFORMATION.—Application of the procedures and methods shall result in reliable and timely information for determining compliance.

"(iii) OTHER REQUIREMENTS.—

"(I) IN GENERAL.—The requirements for monitoring and analysis under this subparagraph shall include—

"(aa) such requirements that result in a representative determination of mercury in ash and sludge; and

"(bb) such combination of requirements for continuous or other reliable and representative emission monitoring methods that results in a representative determination of mercury in fuel as received by each coal- or oil-fired commercial or industrial boiler unit;

as are requisite to provide accurate and reliable data for determining baseline and controlled emissions of

mercury from each coal- or oil-fired commercial or industrial boiler unit.

"(II) MINIMUM REQUIREMENT.—If, under subclause (I)(bb), the Administrator does not require a coal- or oil-fired commercial or industrial boiler unit to use direct emission monitoring methods, the requirements under subclause (I)(bb) shall, at a minimum, result in representative determinations of mercury in fuel as received by the boiler unit at such frequencies as are sufficient to determine whether compliance with this subsection is continuous.

"(iv) EFFECT ON OTHER LAW.—Nothing in this subsection affects any continuous emission monitoring requirement of title IV or any other provision of this Act.

"(C) INSPECTION, ENTRY, MONITORING, CERTIFICATION, AND REPORTING.—

"(i) IN GENERAL.—Each permit issued in accordance with paragraph (1)(B) shall specify inspection, entry, mon-

itoring, compliance certification, and reporting requirements to ensure compliance with the permit terms and conditions.

''(ii) CONFORMITY WITH OTHER REGULATIONS.—The monitoring and reporting requirements shall conform to each applicable regulation under subparagraph (B).

''(iii) SIGNATURE.—Each report required under clause (i) and subparagraph (B)(iii) shall be signed by a responsible official of the coal- or oil-fired commercial or industrial boiler unit, who shall certify the accuracy of the report.

''(D) MERCURY EMISSION BASELINE.—

''(i) IN GENERAL.—For each coal- or oil-fired commercial or industrial boiler unit (referred to in this subparagraph as a 'unit'), the Administrator shall calculate the baseline annual average poundage of mercury emitted per unit, which shall be equal to the product obtained by multiplying—

''(I) the baseline fuel consumption determined under clause (ii) for the unit; by

"(II) the baseline average mercury content determined under clause (iii) for the unit.

"(ii) BASELINE FUEL CONSUMPTION.—

"(I) UNITS IN COMMERCIAL OPERATION BEFORE JANUARY 1, 1996.—For each unit that began commercial operation before January 1, 1996, the baseline fuel consumption shall be equal to the annual average quantity of millions of British thermal units (referred to in this subparagraph as 'mmBtu's') consumed by the unit during the period of calendar years 1996, 1997, and 1998, as submitted annually to the Secretary of Energy on Department of Energy Forms EIA–3 and EIA–846 (A, B, C) (referred to in this clause as the 'Forms').

"(II) UNITS BEGINNING COMMERCIAL OPERATION BETWEEN JANUARY 1, 1996, AND 180 DAYS AFTER ENACTMENT.—Subject to subclause (III), for each unit that begins com-

mercial operation between January 1, 1996, and the date that is 180 days after the date of enactment of this subparagraph, the baseline fuel consumption shall be based on the annual average of the fuel use data submitted on the Forms for each full year of commercial operation that begins on or after January 1, 1996.

''(III) UNITS IN COMMERCIAL OPERATION LESS THAN 1 YEAR AS OF 180 DAYS AFTER ENACTMENT.—For each unit that has not been in commercial operation for at least 1 year as of the date that is 180 days after the date of enactment of this subparagraph, the Administrator may determine an interim baseline fuel consumption by—

''(aa) extrapolating from monthly fuel use data available for the unit; or

''(bb) assigning a baseline fuel consumption based on the annual average of the fuel use

data submitted on the Forms for other units that are of similar design and capacity.

''(IV) UNITS BEGINNING COMMERCIAL OPERATION MORE THAN 180 DAYS AFTER ENACTMENT.—For each unit that begins commercial operation more than 180 days after the date of enactment of this subparagraph, the application for a permit issued in accordance with paragraph (1)(B) for the unit shall include an initial baseline fuel consumption that is based on the maximum design capacity for the unit.

''(V) RECALCULATION AFTER EXTENDED PERIOD OF COMMERCIAL OPERATION.—At such time as a unit described in any of subclauses (II) through (IV) has submitted fuel use data for 3 consecutive years of commercial operation on the Forms, the Administrator shall recalculate the baseline fuel consumption and make modifications, as necessary, to the

mercury emission limitations contained in the permit for the unit issued in accordance with paragraph (1)(B).

"(iii) BASELINE AVERAGE MERCURY CONTENT.—

"(I) UNITS IN COMMERCIAL OPERATION BEFORE JANUARY 1, 1996.—In the case of a unit described in clause (ii)(I), the baseline average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy (as submitted to the Secretary of Energy on Department of Energy Form EIA–3A) that characterize the average mercury content of the fuel consumed by the unit during the 3-year period described in clause (ii)(I).

"(II) UNITS BEGINNING COMMERCIAL OPERATION BETWEEN JANUARY 1, 1996, AND 180 DAYS AFTER ENACTMENT.—In the case of a unit de-

scribed in clause (ii)(II), the baseline average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy (as submitted to the Secretary of Energy on Department of Energy Form EIA–3A) that characterize the average mercury content of the fuel consumed by the unit during each full year of commercial operation that begins on or after January 1, 1996.

''(III) UNITS IN COMMERCIAL OPERATION LESS THAN 1 YEAR AS OF 180 DAYS AFTER ENACTMENT.—In the case of a unit described in clause (ii)(III), the baseline average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy (as submitted to the Secretary of Energy on Department of Energy Form EIA–3A) that

characterize the average mercury content of the fuel consumed by the unit—

"(aa) during the months used for the extrapolation under clause (ii)(III); or

"(bb) based on the average mercury content of fuel consumed by other units that are of similar design and capacity.

"(IV) UNITS BEGINNING COMMERCIAL OPERATION MORE THAN 180 DAYS AFTER ENACTMENT.—In the case of a unit described in clause (ii)(IV), the baseline average mercury content per mmBtu of fuel consumed by a unit shall be determined using the best available data from the Department of the Interior and the Department of Energy (as submitted to the Secretary of Energy on Department of Energy Form EIA–3A), or data submitted by the unit under subparagraph (B)(iii), that characterize the average mercury content of the

fuel consumed by the unit based on the maximum design capacity for the unit.

''(V) ESTIMATED DATA.—If mercury content data described in clauses (I) through (IV) are not available, the baseline average mercury content shall be estimated using the average mercury content of coal mined or oil produced in the geographic region of each mine or well that supplies the unit.

''(4) DISPOSAL OF MERCURY CAPTURED THROUGH EMISSION CONTROLS.—

''(A) IN GENERAL.—

''(i) CAPTURED OR RECOVERED MERCURY.—The regulations promulgated by the Administrator under paragraph (1)(A) shall ensure that mercury that is captured or recovered through the use of an emission control, coal cleaning, or another method is disposed of in a manner that ensures that—

''(I) the hazards from mercury are not transferred from 1 environmental medium to another; and

''(II) there is no release of mercury into the environment (as the terms 'release' and 'environment' are defined in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601)).

''(ii) MERCURY-CONTAINING SLUDGES AND WASTES.—The regulations promulgated by the Administrator under paragraph (1)(A) shall ensure that mercury-containing sludges and wastes are handled and disposed of in accordance with all applicable Federal and State laws (including regulations).

''(B) RESEARCH PROGRAM.—To promote permanent and cost-effective disposal of mercury from coal- and oil-fired commercial and industrial boiler units, the Administrator shall establish a program of long-term research to develop and disseminate information on methods and techniques such as separating, solidifying, recycling, and encapsulating mercury-containing waste so that mercury does not volatilize, mi-

grate to ground water or surface water, or contaminate the soil.

''(5) OTHER REQUIREMENTS.—An emission standard or other requirement promulgated under this subsection does not diminish or replace any requirement of a more stringent emission limitation or other applicable requirement established under this Act or a standard issued under State law.

''(6) PUBLIC REPORTING OF DATA PERTAINING TO EMISSIONS OF MERCURY.—

''(A) IN GENERAL.—The Administrator shall annually make available to the public, through 1 or more published reports and 1 or more forms of electronic media, facility-specific mercury emission data for each coal- or oil-fired commercial or industrial boiler unit.

''(B) SOURCE OF DATA.—The emission data shall be taken from the monitoring and analysis reports submitted under paragraph (3)(C).''.

SEC. 5. REDUCTION OF MERCURY EMISSIONS FROM SOLID WASTE INCINERATION UNITS.

(a) SEPARATION OF MERCURY-CONTAINING ITEMS.—Section 3002 of the Solid Waste Disposal Act

(42 U.S.C. 6922) is amended by adding at the end the following:

"(e) SEPARATION OF MERCURY-CONTAINING ITEMS.—

"(1) PUBLICATION OF LIST.—

"(A) IN GENERAL.—Not later than 180 days after the date of enactment of this subsection, the Administrator shall publish a list of mercury-containing items that shall be required to be separated and removed from the waste streams that feed solid waste management facilities.

"(B) REQUIRED ITEMS.—The list shall include mercury-containing items such as fluorescent light bulbs, batteries, pharmaceuticals, laboratory chemicals and reagents, electrical devices such as thermostats, relays, and switches, and medical and scientific instruments.

"(C) LABELING REQUIREMENT.—

"(i) IN GENERAL.—Except as provided in clause (ii), to facilitate the process of separating and removing items listed under subparagraph (A), each manufacturer of a listed item shall ensure that

each item is clearly labeled to indicate that the product contains mercury.

"(ii) BUTTON CELL BATTERIES.—In the case of button cell batteries for which, due to size constraints, labeling described in clause (i) is not practicable, the packaging shall indicate that the product contains mercury.

"(2) PLAN.—

"(A) REQUIREMENT.—Not later than 1 year after the date of enactment of this subsection, each person that transfers, directly or through a contractor, solid waste that may contain a mercury-containing item listed under paragraph (1) to a solid waste management facility shall submit for review and approval by the Administrator (or, in the case of a solid waste management facility located in a State that has a State hazardous waste program authorized under section 3006, the State) a plan for—

"(i) separating and removing mercury-containing items listed by the Administrator under paragraph (1) from the

waste streams that feed any solid waste management facility;

''(ii) subject to the other requirements of this subtitle, transferring the separated waste to a recycling facility or a treatment, storage, or disposal facility that holds a permit under this subtitle;

''(iii) monitoring and reporting on compliance with the plan; and

''(iv) achieving full compliance with the plan not later than 18 months after the date of approval of the plan in accordance with subparagraph (B).

''(B) PLAN APPROVAL.—

''(i) DEADLINE.—The Administrator (or the State) shall determine whether to approve or disapprove a plan submitted under subparagraph (A) not later than 180 days after the date of receipt of the plan.

''(ii) PREFERENCE.—In determining whether to approve a plan, the Administrator (or the State) shall give preference to recycling or stabilization of mercury-containing items over disposal of the items.

''(C) AMENDED PLAN.—

"(i) SUBMISSION.—If the Administrator (or the State) disapproves a plan, the person may submit an amended plan not later than 90 days after the date of disapproval.

"(ii) APPROVAL.—The Administrator (or the State) shall approve or disapprove the amended plan not later than 30 days after the date of receipt of the plan.

"(D) PLAN BY ADMINISTRATOR (OR STATE).—

"(i) IN GENERAL.—If an amended plan is not submitted to the Administrator (or the State) within 90 days after the date of disapproval, or if an amended plan has been submitted and subsequently disapproved, the Administrator (or the State) shall issue a determination that it is necessary for the Administrator (or the State) to promulgate a plan for the person.

"(ii) PLAN.—Not later than 180 days after issuing the determination, the Administrator (or the State) shall develop, publish in the Federal Register (or submit to the Administrator for publication in the

Federal Register), implement, and enforce a plan that meets the criteria specified in subparagraph (A) and ensures that full compliance with the plan will be achieved not later than 18 months after the date of publication of the plan.

''(E) ENFORCEABILITY.—Upon approval by the Administrator (or the State) of a plan submitted under subparagraph (A), or upon publication of a plan developed by the Administrator (or the State) under subparagraph (D), the plan shall be enforceable under this Act.''.

(b) SOLID WASTE INCINERATION UNIT MERCURY EMISSION MONITORING AND ANALYSIS.—Section 129(e) of the Clean Air Act (42 U.S.C. 7429(e)) is amended—

(1) by striking ''Beginning (1) 36'' and inserting the following:

''(1) IN GENERAL.—Beginning (A) 36'';

(2) in the first sentence, by redesignating paragraph (2) as subparagraph (B); and

(3) by adding at the end the following:

''(2) SOLID WASTE INCINERATION UNIT MERCURY EMISSION MONITORING AND ANALYSIS.—

''(A) PROCEDURES AND METHODS.—

"(i) IN GENERAL.—Not later than 180 days after the date of enactment of this subparagraph, the Administrator shall promulgate regulations prescribing procedures and methods for—

"(I) monitoring and analysis for mercury emissions from solid waste combustion flue gases; and

"(II) determining compliance with this paragraph.

"(ii) INFORMATION.—Application of the procedures and methods shall result in reliable and timely information for determining compliance.

"(B) PERMIT REQUIREMENTS.—

"(i) IN GENERAL.—Each permit described in paragraph (1) shall specify inspection, entry, monitoring, compliance certification, and reporting requirements with respect to mercury to ensure compliance with the permit terms and conditions, including a requirement that the permittee submit to the permitting authority, not less often than every 90 days, the results of any required monitoring.

''(ii) SIGNATURE.—Each report required under clause (i) shall be signed by a responsible official of the solid waste incineration unit or by a municipal official, who shall certify the accuracy of the report.

''(C) ESTABLISHMENT OF MAXIMUM MERCURY EMISSION RATE.—

''(i) DETERMINATION BY THE ADMINISTRATOR.—Based on the reports required to be submitted under subparagraph (B)(i) 36 months, 39 months, and 42 months after the date of enactment of this subparagraph, the Administrator (or the State) shall make a determination as to whether the solid waste incinerator unit has achieved and is continuously maintaining a mercury emission rate of not more than 0.080 milligrams per dry standard cubic meter.

''(ii) REQUIREMENT OF INSTALLATION OF CONTROLS.—If the mercury emission rate specified in clause (i) is not achieved and maintained over the period covered by the reports referred to in clause

(i), or over any 2 out of 3 reporting periods thereafter, the Administrator shall require that the solid waste incineration unit install control equipment and techniques that will, within 3 years, result in a mercury emission rate by the unit of not more than 0.060 milligrams per dry standard cubic meter.

''(iii) ENFORCEABILITY.—The requirements of this subparagraph shall be an enforceable modification to any existing or new permit described in paragraph (1) for the solid waste incineration unit.

''(D) OTHER REQUIREMENTS.—An emission standard or other requirement promulgated under this subsection does not diminish or replace any requirement of a more stringent emission limitation or other applicable requirement established under this Act or a standard issued under State law.

''(E) PUBLIC REPORTING OF DATA PERTAINING TO EMISSIONS OF MERCURY.—

''(i) IN GENERAL.—The Administrator shall annually make available to the public, through 1 or more published reports and 1

or more forms of electronic media, facility-specific mercury emission data for each solid waste incineration unit.

''(ii) SOURCE OF DATA.—The emission data shall be taken from the monitoring and analysis reports submitted under subparagraph (B).''.

(c) PHASEOUT OF MERCURY IN PRODUCTS.—Section 112 of the Clean Air Act (as amended by section 4) is amended by inserting after subsection (t) the following:

''(u) PHASEOUT OF MERCURY IN PRODUCTS.—

''(1) DEFINITION OF MANUFACTURER.—In this subsection, the term 'manufacturer' includes an importer for resale.

''(2) PROHIBITION ON SALE.—Beginning 3 years after the date of enactment of this paragraph, a manufacturer shall not sell any mercury-containing product, whether manufactured domestically, imported, or manufactured for export, unless the manufacturer has applied for and has been granted by the Administrator an exemption from the prohibition on sale specified in this paragraph.

''(3) PROCEDURES FOR MAKING EXEMPTION APPLICATION DETERMINATIONS.—Before making a

determination on an application, the Administrator shall—

"(A) publish notice of the application in the Federal Register;

"(B) provide a public comment period of 60 days; and

"(C) conduct a hearing on the record.

"(4) CRITERIA FOR EXEMPTION.—In making a determination on an application, the Administrator may grant an exemption from the prohibition on sale only if—

"(A) the Administrator determines that the mercury-containing product is a product the use of which is essential;

"(B) the Administrator determines that there is no comparable product that does not contain mercury and that is available in the marketplace at a reasonable cost; and

"(C) through documentation submitted by the manufacturer, the Administrator determines that the manufacturer has established a program to take back, after use by the consumer, all mercury-containing products subject to the exemption that are manufactured after the date of approval of the application.

''(5) TERM OF EXEMPTION.—

''(A) IN GENERAL.—An exemption may be granted for a period of not more than 3 years.

''(B) RENEWALS.—Renewal of an exemption shall be carried out in accordance with paragraphs (3) and (4).

''(6) PUBLICATIONS IN THE FEDERAL REGISTER.—The Administrator shall publish in the Federal Register—

''(A) a description of each exemption application approval or denial; and

''(B) on an annual basis, a list of products for which exemptions have been granted under this subsection.''.

SEC. 6. MERCURY EMISSION STANDARDS FOR CHLOR-ALKALI PLANTS.

Section 112 of the Clean Air Act (as amended by section 5(c)) is amended by inserting after subsection (u) the following:

''(v) MERCURY EMISSION STANDARDS FOR CHLOR-ALKALI PLANTS.—

''(1) IN GENERAL.—

''(A) REGULATIONS.—Not later than 180 days after the date of enactment of this subparagraph, the Administrator shall promulgate

regulations to establish standards for the direct and fugitive emission of mercury and mercury compounds (collectively referred to in this subsection as 'mercury') applicable to existing and new chlor-alkali plants that use the mercury cell production process (referred to in this subsection as 'mercury cell chlor-alkali plants').

''(B) PERMIT REQUIREMENT.—Not later than 2 years after the date of enactment of this subparagraph, each mercury cell chlor-alkali plant shall have an enforceable permit issued under title V that complies with this subsection.

''(C) PROCEDURES AND SCHEDULES FOR COMPLIANCE WITH STANDARDS.—Each mercury cell chlor-alkali plant shall achieve compliance with the mercury emission standards established under subparagraph (A) in accordance with the procedures and schedules established under subsection (i).

''(2) STANDARDS AND METHODS.—

''(A) MINIMUM REQUIRED EMISSION REDUCTION.—The emission standards established under paragraph (1)(A) shall require that each mercury cell chlor-alkali plant reduce its annual poundage of direct and fugitive mercury emit-

ted below its mercury emission baseline, as determined by the Administrator, by not less than 95 percent.

''(B) CONTROL METHODS.—For the purpose of achieving compliance with the emission standards established under paragraph (1)(A), the Administrator shall authorize methods of control of mercury emissions, including measures that—

''(i) reduce the volume of, or eliminate emissions of, mercury through a process change, substitution of material, or other method;

''(ii) enclose systems or processes to eliminate mercury emissions;

''(iii) collect, capture, or treat mercury emissions when released from a process, stack, storage, or fugitive emission point, or through evaporation of a spill;

''(iv) consist of design, equipment, manufacturing process, work practice, or operational standards (including requirements for operator training or certification or spill prevention) in accordance with subsection (h); or

"(v) consist of a combination of the measures described in clauses (i) through (iv).

"(3) PERMIT REQUIREMENTS AND CONDITIONS.—

"(A) IN GENERAL.—Each permit issued in accordance with paragraph (1)(B) shall include—

"(i) enforceable mercury emission standards;

"(ii) a schedule of compliance;

"(iii) a requirement that the permittee submit to the permitting authority, not less often than every 90 days, the results of any required monitoring; and

"(iv) such other conditions as the Administrator determines are necessary to ensure compliance with this subsection and each applicable implementation plan under section 110.

"(B) MONITORING AND ANALYSIS.—

"(i) PROCEDURES AND METHODS.—The regulations promulgated by the Administrator under paragraph (1)(A) shall prescribe procedures and methods for—

''(I) monitoring and analysis for mercury; and

''(II) determining compliance with this subsection.

''(ii) INFORMATION.—Application of the procedures and methods shall result in reliable and timely information for determining compliance.

''(iii) EFFECT ON OTHER LAW.—Nothing in this subsection affects any continuous emission monitoring requirement of title IV or any other provision of this Act.

''(C) INSPECTION, ENTRY, MONITORING, CERTIFICATION, AND REPORTING.—

''(i) IN GENERAL.—Each permit issued in accordance with paragraph (1)(B) shall specify inspection, entry, monitoring, compliance certification, and reporting requirements to ensure compliance with the permit terms and conditions.

''(ii) CONFORMITY WITH OTHER REGULATIONS.—The monitoring and reporting requirements shall conform to each applicable regulation under subparagraph (B).

"(iii) SIGNATURE.—Each report required under clause (i) shall be signed by a responsible official of the mercury cell chlor-alkali plant, who shall certify the accuracy of the report.

"(4) DISPOSAL OF MERCURY CAPTURED THROUGH EMISSION CONTROLS.—

"(A) IN GENERAL.—

"(i) CAPTURED OR RECOVERED MERCURY.—The regulations promulgated by the Administrator under paragraph (1)(A) shall ensure that mercury that is captured or recovered through the use of an emission control or another method is disposed of in a manner that ensures that—

"(I) the hazards from mercury are not transferred from 1 environmental medium to another; and

"(II) there is no release of mercury into the environment (as the terms 'release' and 'environment' are defined in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601)).

''(ii) MERCURY-CONTAINING WASTES.—The regulations promulgated by the Administrator under paragraph (1)(A) shall ensure that mercury-containing wastes are handled and disposed of in accordance with all applicable Federal and State laws (including regulations).

''(B) RESEARCH PROGRAM.—To promote permanent and cost-effective disposal of mercury from mercury cell chlor-alkali plants, the Administrator shall establish a program of long-term research to develop and disseminate information on methods and techniques such as separating, solidifying, recycling, and encapsulating mercury-containing waste so that mercury does not volatilize, migrate to ground water or surface water, or contaminate the soil.

''(5) OTHER REQUIREMENTS.—An emission standard or other requirement promulgated under this subsection does not diminish or replace any requirement of a more stringent emission limitation or other applicable requirement established under this Act or a standard issued under State law.

''(6) PUBLIC REPORTING OF DATA PERTAINING TO EMISSIONS OF MERCURY.—

"(A) IN GENERAL.—The Administrator shall annually make available to the public, through 1 or more published reports and 1 or more forms of electronic media, facility-specific mercury emission data for each mercury cell chlor-alkali plant.

"(B) SOURCE OF DATA.—The emission data shall be taken from the monitoring and analysis reports submitted under paragraph (3)(C).".

SEC. 7. MERCURY EMISSION STANDARDS FOR PORTLAND CEMENT PLANTS.

Section 112 of the Clean Air Act (as amended by section 6) is amended by inserting after subsection (v) the following:

"(w) MERCURY EMISSION STANDARDS FOR PORTLAND CEMENT PLANTS.—

"(1) IN GENERAL.—

"(A) REGULATIONS.—Not later than 180 days after the date of enactment of this subparagraph, the Administrator shall promulgate regulations—

"(i) to establish standards for the control of direct dust emission of mercury and mercury compounds (collectively re-

ferred to in this subsection as 'mercury') from crushers, mills, dryers, kilns (excluding emission from such burning of hazardous waste-containing fuel in a cement kiln as is regulated under section 3004(q) of the Solid Waste Disposal Act (42 U.S.C. 6924(q)), and clinker coolers at existing and new Portland cement plants; and

''(ii) to establish standards for the control of fugitive dust emission of mercury from storage, transport, charging, and discharging operations at existing and new Portland cement plants.

''(B) PERMIT REQUIREMENT.—Not later than 2 years after the date of enactment of this subparagraph, each Portland cement plant shall have an enforceable permit issued under title V that complies with this subsection.

''(C) PROCEDURES AND SCHEDULES FOR COMPLIANCE WITH STANDARDS.—Each Portland cement plant shall achieve compliance with the mercury emission standards established under subparagraph (A) in accordance with the

procedures and schedules established under subsection (i).

''(2) STANDARDS AND METHODS.—

''(A) MINIMUM REQUIRED EMISSION REDUCTION.—The emission standards established under paragraph (1)(A) shall require that each Portland cement plant reduce its annual poundage of direct and fugitive mercury emitted below its mercury emission baseline, as determined by the Administrator, by not less than 95 percent.

''(B) CONTROL METHODS.—For the purpose of achieving compliance with the emission standards established under paragraph (1)(A), the Administrator shall authorize methods of control of mercury emissions, including measures that—

''(i) reduce the volume of, or eliminate emissions of, mercury through a process change, substitution of material, or other method;

''(ii) enclose systems, processes, or storage to eliminate mercury emissions;

''(iii) collect, capture, or treat mercury emissions when released from a proc-

ess, stack, storage, or fugitive emission point;

"(iv) consist of design, equipment, manufacturing process, work practice, or operational standards (including requirements for operator training or certification) in accordance with subsection (h); or

"(v) consist of a combination of the measures described in clauses (i) through (iv).

"(3) PERMIT REQUIREMENTS AND CONDITIONS.—

"(A) IN GENERAL.—Each permit issued in accordance with paragraph (1)(B) shall include—

"(i) enforceable mercury emission standards;

"(ii) a schedule of compliance;

"(iii) a requirement that the permittee submit to the permitting authority, not less often than every 90 days, the results of any required monitoring; and

"(iv) such other conditions as the Administrator determines are necessary to en-

sure compliance with this subsection and each applicable implementation plan under section 110.

"(B) MONITORING AND ANALYSIS.—

"(i) PROCEDURES AND METHODS.—The regulations promulgated by the Administrator under paragraph (1)(A) shall prescribe procedures and methods for—

"(I) monitoring and analysis for mercury; and

"(II) determining compliance with this subsection.

"(ii) INFORMATION.—Application of the procedures and methods shall result in reliable and timely information for determining compliance.

"(iii) EFFECT ON OTHER LAW.—Nothing in this subsection affects any continuous emission monitoring requirement of title IV or any other provision of this Act.

"(C) INSPECTION, ENTRY, MONITORING, CERTIFICATION, AND REPORTING.—

"(i) IN GENERAL.—Each permit issued in accordance with paragraph

(1)(B) shall specify inspection, entry, monitoring, compliance certification, and reporting requirements to ensure compliance with the permit terms and conditions.

''(ii) CONFORMITY WITH OTHER REGULATIONS.—The monitoring and reporting requirements shall conform to each applicable regulation under subparagraph (B).

''(iii) SIGNATURE.—Each report required under clause (i) shall be signed by a responsible official of the Portland cement plant, who shall certify the accuracy of the report.

''(4) DISPOSAL OF MERCURY CAPTURED THROUGH EMISSION CONTROLS.—

''(A) IN GENERAL.—

''(i) CAPTURED OR RECOVERED MERCURY.—The regulations promulgated by the Administrator under paragraph (1)(A) shall ensure that mercury that is captured or recovered through the use of an emission control or another method is disposed of in a manner that ensures that—

''(I) the hazards from mercury are not transferred from 1 environmental medium to another; and

''(II) there is no release of mercury into the environment (as the terms 'release' and 'environment' are defined in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601)).

''(ii) MERCURY-CONTAINING WASTES.—The regulations promulgated by the Administrator under paragraph (1)(A) shall ensure that mercury-containing wastes are handled and disposed of in accordance with all applicable Federal and State laws (including regulations).

''(B) RESEARCH PROGRAM.—To promote permanent and cost-effective disposal of mercury from Portland cement plants, the Administrator shall establish a program of long-term research to develop and disseminate information on methods and techniques such as separating, solidifying, recycling, and encapsulating mercury-containing waste so that mercury does not

volatilize, migrate to ground water or surface water, or contaminate the soil.

''(5) OTHER REQUIREMENTS.—An emission standard or other requirement promulgated under this subsection does not diminish or replace any requirement of a more stringent emission limitation or other applicable requirement established under this Act or a standard issued under State law.

''(6) PUBLIC REPORTING OF DATA PERTAINING TO EMISSIONS OF MERCURY.—

''(A) IN GENERAL.—The Administrator shall annually make available to the public, through 1 or more published reports and 1 or more forms of electronic media, facility-specific mercury emission data for each Portland cement plant.

''(B) SOURCE OF DATA.—The emission data shall be taken from the monitoring and analysis reports submitted under paragraph (3)(C).''.

SEC. 8. REPORT ON IMPLEMENTATION OF MERCURY EMISSION STANDARDS FOR MEDICAL WASTE INCINERATORS.

(a) IN GENERAL.—Not later than December 31, 2000, the Administrator of the Environmental Protection

Agency shall submit to Congress a report on the extent to which the annual poundage of mercury and mercury compounds emitted by each medical waste incinerator in the United States has been reduced below the baseline for the medical waste incinerator determined under subsection (b).

(b) BASELINE.—

(1) USE OF ACTUAL DATA.—As a baseline for measuring emission reductions, the report shall use the mercury and mercury compound emission data that were submitted or developed during the process of permitting of the medical waste incinerator under the Clean Air Act (42 U.S.C. 7401 et seq.).

(2) LACK OF ACTUAL DATA.—If the data described in paragraph (1) are not available, the Administrator shall develop an estimate of baseline mercury emissions based on other sources of data and the best professional judgment of the Administrator.

SEC. 9. REPORT ON IMPLEMENTATION OF MERCURY EMISSION STANDARDS FOR HAZARDOUS WASTE COMBUSTORS.

(a) IN GENERAL.—Not later than December 31, 2000, the Administrator of the Environmental Protection Agency shall submit to Congress a report on the extent

to which the annual poundage of mercury and mercury compounds emitted by each hazardous waste combustor in the United States has been reduced below the baseline for the hazardous waste combustor determined under subsection (b).

(b) BASELINE.—

(1) USE OF ACTUAL DATA.—As a baseline for measuring emission reductions, the report shall use the mercury and mercury compound emission data that were submitted or developed during the process of permitting of the hazardous waste combustor under the Clean Air Act (42 U.S.C. 7401 et seq.).

(2) LACK OF ACTUAL DATA.—If the data described in paragraph (1) are not available, the Administrator shall develop an estimate of baseline mercury emissions based on other sources of data and the best professional judgment of the Administrator.

SEC. 10. REPORT ON USE OF MERCURY AND MERCURY COMPOUNDS BY DEPARTMENT OF DEFENSE.

(a) IN GENERAL.—Not later than December 31, 2000, the Secretary of Defense shall submit to Congress a report on the use of mercury and mercury compounds by the Department of Defense.

(b) CONTENTS.—In the report, the Secretary of Defense shall describe—

(1) measures that the Department of Defense is carrying out to reduce the use and emissions of mercury and mercury compounds by the Department; and

(2) measures that the Department of Defense is carrying out to stabilize or recycle discarded mercury or discarded mercury-containing products.

SEC. 11. INTERNATIONAL ACTIVITIES.

(a) STUDY AND REPORT.—Not later than December 31, 2000, the Administrator of the Environmental Protection Agency, in cooperation with appropriate representatives of Canada and Mexico, shall study and submit to Congress a report on the sources and extent of mercury emissions in North America.

(b) REVIEW.—Before submitting the report to Congress, the Administrator shall submit the report for—

(1) internal and external scientific peer review; and

(2) review by the Science Advisory Board established by section 8 of the Environmental Research, Development, and Demonstration Authorization Act of 1978 (42 U.S.C. 4365).

(c) REQUIRED ELEMENTS.—The report shall include—

(1) a characterization and identification of the sources of emissions of mercury in North America;

(2) a description of the patterns and pathways taken by mercury pollution through the atmosphere and surface water; and

(3) recommendations for pollution control measures, options, and strategies that, if implemented individually or jointly by the United States, Canada, and Mexico, will eliminate or greatly reduce transboundary atmospheric and surface water mercury pollution in North America.

SEC. 12. MERCURY RESEARCH.

Section 103 of the Clean Air Act (42 U.S.C. 7403) is amended by adding at the end the following:

''(l) MERCURY RESEARCH.—

''(1) ESTABLISHMENT OF PROGRAMS.—The Administrator shall establish—

''(A) a program to characterize and quantify the potential mercury-related health effects on high-risk populations (such as pregnant women and their fetuses, women of childbearing age, children, and individuals who subsist primarily on fish); and

"(B) a mercury public awareness and prevention program targeted at populations most at risk from exposure to mercury.

"(2) STUDY OF IMPLEMENTATION OF MEASURES TO CONTROL MERCURY EMISSIONS.—

"(A) ESTABLISHMENT OF ADVISORY COMMITTEE.—Not later than 3 years after the date of enactment of this subsection, the Secretary of Health and Human Services and the Administrator shall establish an advisory committee to evaluate and prepare a report on the progress made by the Federal Government, State and local governments, industry, and other regulated entities to implement and comply with the mercury-related amendments to the Clean Air Act (42 U.S.C. 7401 et seq.) made by the Omnibus Mercury Emissions Reduction Act of 1999.

"(B) MEMBERSHIP.—

"(i) IN GENERAL.—The advisory committee shall consist of at least 15 members, of whom at least 1 member shall represent each of the following:

"(I) The Department of Health and Human Services.

''(II) The Agency for Toxic Substances and Disease Registry.

''(III) The Food and Drug Administration.

''(IV) The Environmental Protection Agency.

''(V) The National Academy of Sciences.

''(VI) Native American populations.

''(VII) State and local governments.

''(VIII) Industry.

''(IX) Environmental organizations.

''(X) Public health organizations.

''(ii) APPOINTMENT.—The Secretary of Health and Human Services and the Administrator shall each appoint not fewer than 7 members of the advisory committee.

''(C) DUTIES.—The advisory committee shall—

''(i) evaluate the adequacy and completeness of data collected and disseminated by the Environmental Protection

Agency and each State that reports on and measures mercury contamination in the environment;

''(ii) make recommendations to the Secretary of Health and Human Services and the Administrator concerning—

''(I) changes necessary to improve the quality and ensure consistency from State to State of Federal and State data collection, reporting, and characterization of baseline environmental conditions; and

''(II) methods for improving public education, particularly among high-risk populations (such as pregnant women and their fetuses, women of childbearing age, children, and individuals who subsist primarily on fish), concerning the pathways and effects of mercury contamination and consumption; and

''(iii) not later than 4 years after the date of enactment of this subsection, compile and make available to the public, through 1 or more published reports and 1

or more forms of electronic media, the findings, recommendations, and supporting data, including State-specific data, of the advisory committee under this subparagraph.

''(D) COMPENSATION.—

''(i) IN GENERAL.—A member of the advisory committee shall receive no compensation by reason of the service of the member on the advisory committee.

''(ii) TRAVEL EXPENSES.—A member of the advisory committee shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for employees of agencies under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of business of the member in the performance of services for the advisory committee.

''(E) DURATION OF ADVISORY COMMITTEE.—The advisory committee—

''(i) shall terminate not earlier than the date on which the Secretary of Health and Human Services and the Adminis-

trator determine that the findings, recommendations, and supporting data prepared by the advisory committee have been made available to the public; and

"(ii) may, at the discretion of the Secretary of Health and Human Services and the Administrator, continue in existence after that date to further carry out the duties described in subparagraph (C).

"(F) APPLICABILITY OF FEDERAL ADVISORY COMMITTEE ACT.—The Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the advisory committee established under this paragraph.

"(G) FUNDING.—The Secretary of Health and Human Services and the Administrator shall each provide 50 percent of the funding necessary to carry out this paragraph.

"(3) REPORT ON MERCURY SEDIMENTATION TRENDS.—Not later than 1 year after the date of enactment of this subsection, the Administrator shall submit to Congress a report that characterizes mercury and mercury-compound sedimentation trends in Lake Champlain, Chesapeake Bay, the Great Lakes, the finger lakes region of upstate New York, Tampa

Bay, and other water bodies of concern (as determined by the Administrator).

''(4) EVALUATION OF FISH CONSUMPTION ADVISORIES.—

''(A) IN GENERAL.—The Administrator shall evaluate the adequacy, consistency, completeness, and public dissemination of—

''(i) data collected by the Environmental Protection Agency and each State concerning mercury contamination of fish; and

''(ii) advisories to warn the public about the consumption of mercury-contaminated fish (referred to in this paragraph as 'fish consumption advisories').

''(B) IMPROVEMENT OF QUALITY AND CONSISTENCY.—In conjunction with each State or unilaterally, the Administrator shall implement any changes necessary to improve the quality and ensure consistency from State to State of Federal and State data collection, reporting, characterization of mercury contamination, and thresholds concerning mercury contamination in fish above which fish consumption advisories will be issued.

"(C) REPORTING.—Not later than 2 years after the date of enactment of this subsection and every 2 years thereafter, the Administrator shall prepare and make available to the public, through 1 or more published reports and 1 or more forms of electronic media, information providing detail by State, watershed, water body, and river reach of mercury levels in fish and any fish consumption advisories that have been issued during the preceding 2-year period.

"(D) EFFECT ON STATE AUTHORITY.—Nothing in this paragraph affects any authority of a State to advise residents of the mercury content of commercially sold foods and other products.".

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