

105TH CONGRESS
2D SESSION

H. R. 3791

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 HOUSE OF REPRESENTATIVES

MAY 5, 1998

Mr. ALLEN (for himself, Mr. SANDERS, Mr. BALDACCI, Mr. GUTIERREZ, Mr. HINCHEY, Mr. STARK, Mrs. MALONEY of New York, and Mr. RUSH) introduced the following bill; which was referred to the Committee on Commerce

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.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the
3 “Omnibus Mercury Emissions Reduction Act of 1998”.

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

- Sec. 1. Short title; table of contents.
- Sec. 2. Findings and purposes.
- Sec. 3. Mercury emission standards for fossil fuel-fired electric utility steam
generating units.
- Sec. 4. Mercury emission standards for coal- and oil-fired commercial and in-
dustrial boiler units.
- Sec. 5. Mercury emission standards for solid waste incineration units.
- Sec. 6. Mercury emission standards for chlor-alkali plants.
- Sec. 7. Mercury emission standards for Portland cement plants.
- Sec. 8. Report on implementation of mercury emission standards for medical
waste incinerators.
- Sec. 9. Report on implementation of mercury emission standards for hazardous
waste combustors.
- Sec. 10. Report on use of mercury and mercury compounds by Department of
Defense.
- Sec. 11. International activities.
- Sec. 12. Mercury research.

6 **SEC. 2. FINDINGS AND PURPOSES.**

7 (a) FINDINGS.—Congress finds that—

8 (1) on the basis of available scientific and medi-
9 cal evidence, exposure to mercury and mercury com-
10 pounds (collectively referred to in this Act as “mer-
11 cury”) is of concern to human health and the envi-
12 ronment;

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

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

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

7 (B) dermal uptake through soil and water;
8 and

9 (C) inhalation of contaminated air;

10 (4) on the basis of the report entitled “Mercury
11 Study Report to Congress” and submitted by the
12 Environmental Protection Agency under section
13 112(n)(1)(B) of the Clean Air Act (42 U.S.C.
14 7412(n)(1)(B)), the major sources of mercury emis-
15 sions in the United States are, in descending order
16 of volume of emissions—

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

19 (B) solid waste incineration units;

20 (C) coal- and oil-fired commercial and in-
21 dustrial boiler units;

22 (D) medical waste incinerators;

23 (E) hazardous waste combustors;

24 (F) chlor-alkali plants; and

25 (G) Portland cement plants;

1 (5)(A) the Environmental Protection Agency re-
2 port described in paragraph (4), in conjunction with
3 available scientific knowledge, supports a plausible
4 link between mercury emissions from anthropogenic
5 combustion and industrial sources and mercury con-
6 centrations in air, soil, water, and sediments;

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

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

13 (ii) the Northeast and southern New Eng-
14 land; and

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

19 (C) analysis conducted before the date of the
20 Environmental Protection Agency report dem-
21 onstrates that mercury is being deposited into the
22 waters of Canada;

23 (6)(A) the Environmental Protection Agency re-
24 port described in paragraph (4) supports a plausible
25 link between mercury emissions from anthropogenic

1 combustion and industrial sources and concentra-
2 tions of methyl mercury in freshwater fish;

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

7 (C) the total number of mercury advisories in-
8 creased from 899 in 1993 to 1,675 in 1996, an in-
9 crease of 86 percent; and

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

13 (7) the presence of mercury in consumer prod-
14 ucts is of concern in light of the health consequences
15 associated with exposure to mercury;

16 (8) the presence of mercury in certain batteries
17 and fluorescent light bulbs is of special concern, par-
18 ticularly in light of the substantial quantities of used
19 batteries and fluorescent light bulbs that are dis-
20 carded annually in the solid waste stream and the
21 potential for environmental and health consequences
22 associated with land disposal, composting, or incin-
23 eration of the batteries and light bulbs; and

24 (9) a comprehensive study of the use of mer-
25 cury by the Department of Defense would signifi-

1 cantly further the goal of reducing mercury pollu-
2 tion.

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

4 (1) to greatly reduce the quantity of mercury
5 entering the environment by controlling air emis-
6 sions of mercury from fossil fuel-fired electric utility
7 steam generating units, coal- and oil-fired commer-
8 cial and industrial boiler units, solid waste inciner-
9 ation units, medical waste incinerators, hazardous
10 waste combustors, chlor-alkali plants, and Portland
11 cement plants;

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

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

20 (4) to promote efficient and cost-effective meth-
21 ods of controlling mercury emissions;

22 (5) to promote permanent, safe, and stable dis-
23 posal of mercury recovered through coal cleaning,
24 flue gas control systems, and other methods of mer-
25 cury pollution control;

1 (6) to reduce the use of mercury in cases in
2 which technologically and economically feasible alter-
3 natives are available;

4 (7) to educate the public concerning the collec-
5 tion, recycling, and proper disposal of mercury-con-
6 taining products;

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

13 (9) to significantly decrease the threat to
14 human health and the environment posed by mer-
15 cury; and

16 (10) to ensure that the health of sensitive popu-
17 lations, whether in the United States, Canada, or
18 Mexico, is protected, with an adequate margin of
19 safety, against adverse health effects caused by mer-
20 cury.

21 **SEC. 3. MERCURY EMISSION STANDARDS FOR FOSSIL**
22 **FUEL-FIRED ELECTRIC UTILITY STEAM GEN-**
23 **ERATING UNITS.**

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

1 (1) by redesignating subsection (s) as sub-
2 section (w); and

3 (2) by inserting after subsection (r) the follow-
4 ing:

5 “(s) MERCURY EMISSION STANDARDS FOR ELECTRIC
6 UTILITY STEAM GENERATING UNITS.—

7 “(1) IN GENERAL.—

8 “(A) REGULATIONS.—Not later than 180
9 days after the date of enactment of this sub-
10 paragraph, the Administrator shall promulgate
11 regulations to establish standards for the emis-
12 sion of mercury and mercury compounds (col-
13 lectively referred to in this subsection as ‘mer-
14 cury’) applicable to existing and new electric
15 utility steam generating units.

16 “(B) PERMIT REQUIREMENT.—Not later
17 than 2 years after the date of enactment of this
18 subparagraph, each electric utility steam gener-
19 ating unit shall have an enforceable permit
20 issued under title V that complies with this sub-
21 section.

22 “(C) PROCEDURES AND SCHEDULES FOR
23 COMPLIANCE WITH STANDARDS.—Each electric
24 utility steam generating unit shall achieve com-
25 pliance with the mercury emission standards es-

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

4 “(2) STANDARDS AND METHODS.—

5 “(A) MINIMUM REQUIRED EMISSION RE-
6 DUCTION.—Subject to subparagraph (C), the
7 emission standards established under paragraph
8 (1)(A) shall require that each electric utility
9 steam generating unit reduce its annual pound-
10 age of mercury emitted, as calculated under
11 subparagraph (B), below its mercury emission
12 baseline, as calculated under paragraph (3)(D),
13 by not less than 95 percent.

14 “(B) CALCULATION OF ANNUAL POUND-
15 AGE OF MERCURY EMITTED.—

16 “(i) IN GENERAL.—For each electric
17 utility steam generating unit (referred to
18 in this subparagraph as a ‘unit’) and each
19 calendar year, the Administrator shall cal-
20 culate the poundage of mercury emitted
21 per unit for the calendar year, which shall
22 be equal to the product obtained by mul-
23 tiplying—

1 “(I) the fuel consumption deter-
2 mined under clause (ii) for the unit
3 for the calendar year; by

4 “(II) the average mercury con-
5 tent determined under clause (iii) for
6 the unit for the calendar year.

7 “(ii) FUEL CONSUMPTION.—The fuel
8 consumption for a unit shall be equal to
9 the annual average quantity of millions of
10 British thermal units (referred to in this
11 subparagraph as ‘mmBtu’s’) consumed by
12 the unit during the calendar year, as sub-
13 mitted to the Secretary of Energy on De-
14 partment of Energy Form 767.

15 “(iii) AVERAGE MERCURY CON-
16 TENT.—

17 “(I) SPECIFIC DATA.—The aver-
18 age mercury content per mmBtu of
19 fuel consumed by a unit shall be de-
20 termined using the best available data
21 from the Department of the Interior
22 and the Department of Energy that
23 characterize the average mercury con-
24 tent of the fuel consumed by the unit
25 during the calendar year.

1 “(II) ESTIMATED DATA.—If spe-
2 cific mercury content data from the
3 Department of the Interior and the
4 Department of Energy are not avail-
5 able, the average mercury content
6 shall be estimated using the average
7 mercury content of fossil fuel from
8 mines or wells in the geographic re-
9 gion of each mine or well that supplies
10 the unit.

11 “(C) EMISSION TRADING WITHIN A GENER-
12 ATING STATION.—

13 “(i) IN GENERAL.—For the purpose
14 of this subsection, taking into consider-
15 ation the cost of achieving the emission re-
16 duction, the Administrator may allow emis-
17 sion trading among the electric utility
18 steam generating units contained in a
19 power generating station at a single site if
20 the aggregate annual reduction from all
21 such units at the power generating station
22 is not less than 95 percent.

23 “(ii) UNDERLYING DATA.—In carry-
24 ing out clause (i), the Administrator shall

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

3 “(D) CONTROL METHODS.—For the pur-
4 pose of achieving compliance with the emission
5 standards established under paragraph (1)(A),
6 the Administrator shall authorize methods of
7 control of mercury emissions, including meas-
8 ures that—

9 “(i) reduce the volume of, or eliminate
10 emissions of, mercury through a process
11 change, substitution of material or fuel, or
12 other method;

13 “(ii) enclose systems or processes to
14 eliminate mercury emissions;

15 “(iii) collect, capture, or treat mer-
16 cury emissions when released from a proc-
17 ess, stack, storage, or fugitive emission
18 point;

19 “(iv) consist of design, equipment,
20 work practice, or operational standards
21 (including requirements for operator train-
22 ing or certification) in accordance with
23 subsection (h); or

1 “(v) consist of a combination of the
2 measures described in clauses (i) through
3 (iv).

4 “(3) PERMIT REQUIREMENTS AND CONDI-
5 TIONS.—

6 “(A) IN GENERAL.—Each permit issued in
7 accordance with paragraph (1)(B) shall in-
8 clude—

9 “(i) enforceable mercury emission
10 standards;

11 “(ii) a schedule of compliance;

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

16 “(iv) such other conditions as the Ad-
17 ministrator determines are necessary to en-
18 sure compliance with this subsection and
19 each applicable implementation plan under
20 section 110.

21 “(B) MONITORING AND ANALYSIS.—

22 “(i) PROCEDURES AND METHODS.—
23 The regulations promulgated by the Ad-
24 ministrator under paragraph (1)(A) shall
25 prescribe procedures and methods for—

1 “(I) monitoring and analysis for
2 mercury; and

3 “(II) determining compliance
4 with this subsection.

5 “(ii) INFORMATION.—Application of
6 the procedures and methods shall result in
7 reliable and timely information for deter-
8 mining compliance.

9 “(iii) OTHER REQUIREMENTS.—

10 “(I) IN GENERAL.—The require-
11 ments for monitoring and analysis
12 under this subparagraph shall in-
13 clude—

14 “(aa) such requirements
15 that result in a representative de-
16 termination of mercury in ash
17 and sludge; and

18 “(bb) such combination of
19 requirements for continuous or
20 other reliable and representative
21 emission monitoring methods
22 that results in a representative
23 determination of mercury in fuel
24 as received by each electric utility
25 steam generating unit;

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

6 “(II) MINIMUM REQUIREMENT.—

7 If, under subclause (I)(bb), the Ad-
8 ministrator does not require an elec-
9 tric utility steam generating unit to
10 use direct emission monitoring meth-
11 ods, the requirements under subclause
12 (I)(bb) shall, at a minimum, result in
13 representative determinations of mer-
14 cury in fuel as received by the electric
15 utility steam generating unit at such
16 frequencies as are sufficient to deter-
17 mine whether compliance with this
18 subsection is continuous.

19 “(iv) EFFECT ON OTHER LAW.—

20 Nothing in this subsection affects any con-
21 tinuous emission monitoring requirement
22 of title IV or any other provision of this
23 Act.

24 “(C) INSPECTION, ENTRY, MONITORING,
25 CERTIFICATION, AND REPORTING.—

1 “(i) IN GENERAL.—Each permit
2 issued in accordance with paragraph
3 (1)(B) shall specify inspection, entry, mon-
4 itoring, compliance certification, and re-
5 porting requirements to ensure compliance
6 with the permit terms and conditions.

7 “(ii) CONFORMITY WITH OTHER REG-
8 ULATIONS.—The monitoring and reporting
9 requirements shall conform to each appli-
10 cable regulation under subparagraph (B).

11 “(iii) SIGNATURE.—Each report re-
12 quired under clause (i) and subparagraph
13 (B)(iii) shall be signed by a responsible of-
14 ficial of the electric utility steam generat-
15 ing unit, who shall certify the accuracy of
16 the report.

17 “(D) MERCURY EMISSION BASELINE.—

18 “(i) IN GENERAL.—For each electric
19 utility steam generating unit (referred to
20 in this subparagraph as a ‘unit’), the Ad-
21 ministrator shall calculate the baseline an-
22 nual average poundage of mercury emitted
23 per unit, which shall be equal to the prod-
24 uct obtained by multiplying—

1 “(I) the baseline fuel consump-
2 tion determined under clause (ii) for
3 the unit; by

4 “(II) the baseline average mer-
5 cury content determined under clause
6 (iii) for the unit.

7 “(ii) BASELINE FUEL CONSUMP-
8 TION.—

9 “(I) UNITS IN COMMERCIAL OP-
10 ERATION BEFORE JANUARY 1, 1995.—
11 For each unit that began commercial
12 operation before January 1, 1995, the
13 baseline fuel consumption shall be
14 equal to the annual average quantity
15 of millions of British thermal units
16 (referred to in this subparagraph as
17 ‘mmBtu’s’) consumed by the unit dur-
18 ing the period of calendar years 1995,
19 1996, and 1997, as submitted annu-
20 ally to the Secretary of Energy on De-
21 partment of Energy Form 767 (re-
22 ferred to in this clause as ‘Form
23 767’).

24 “(II) UNITS BEGINNING COM-
25 Mercial operation BETWEEN JANU-

1 ARY 1, 1995, AND 180 DAYS AFTER EN-
2 ACTMENT.—Subject to subclause
3 (III), for each unit that begins com-
4 mercial operation between January 1,
5 1995, and the date that is 180 days
6 after the date of enactment of this
7 subparagraph, the baseline fuel con-
8 sumption shall be based on the annual
9 average of the fuel use data submitted
10 on Form 767 for each full year of
11 commercial operation that begins on
12 or after January 1, 1995.

13 “(III) UNITS IN COMMERCIAL
14 OPERATION LESS THAN 1 YEAR AS OF
15 180 DAYS AFTER ENACTMENT.—For
16 each unit that has not been in com-
17 mercial operation for at least 1 year
18 as of the date that is 180 days after
19 the date of enactment of this subpara-
20 graph, the Administrator may deter-
21 mine an interim baseline fuel con-
22 sumption by—

23 “(aa) extrapolating from
24 monthly fuel use data available
25 for the unit; or

1 “(bb) assigning a baseline
2 fuel consumption based on the
3 annual average of the fuel use
4 data submitted on Form 767 for
5 other units that are of similar de-
6 sign and capacity.

7 “(IV) UNITS BEGINNING COM-
8 MERCIAL OPERATION MORE THAN 180
9 DAYS AFTER ENACTMENT.—For each
10 unit that begins commercial operation
11 more than 180 days after the date of
12 enactment of this subparagraph, the
13 application for a permit issued in ac-
14 cordance with paragraph (1)(B) for
15 the unit shall include an initial base-
16 line fuel consumption that is based on
17 the maximum design capacity for the
18 unit.

19 “(V) RECALCULATION AFTER EX-
20 TENDED PERIOD OF COMMERCIAL OP-
21 ERATION.—At such time as a unit de-
22 scribed in any of subclauses (II)
23 through (IV) has submitted fuel use
24 data for 3 consecutive years of com-
25 mercial operation on Form 767, the

1 Administrator shall recalculate the
2 baseline fuel consumption and make
3 modifications, as necessary, to the
4 mercury emission limitations con-
5 tained in the permit for the unit
6 issued in accordance with paragraph
7 (1)(B).

8 “(iii) BASELINE AVERAGE MERCURY
9 CONTENT.—

10 “(I) UNITS IN COMMERCIAL OP-
11 ERATION BEFORE JANUARY 1, 1995.—

12 In the case of a unit described in
13 clause (ii)(I), the baseline average
14 mercury content per mmBtu of fuel
15 consumed by a unit shall be deter-
16 mined using the best available data
17 from the Department of the Interior
18 and the Department of Energy that
19 characterize the average mercury con-
20 tent of the fuel consumed by the unit
21 during the 3-year period described in
22 clause (ii)(I).

23 “(II) UNITS BEGINNING COM-
24 Mercial operation BETWEEN JANU-
25 ARY 1, 1995, AND 180 DAYS AFTER EN-

1 ACTMENT.—In the case of a unit de-
2 scribed in clause (ii)(II), the baseline
3 average mercury content per mmBtu
4 of fuel consumed by a unit shall be
5 determined using the best available
6 data from the Department of the In-
7 terior and the Department of Energy
8 that characterize the average mercury
9 content of the fuel consumed by the
10 unit during each full year of commer-
11 cial operation that begins on or after
12 January 1, 1995.

13 “(III) UNITS IN COMMERCIAL
14 OPERATION LESS THAN 1 YEAR AS OF
15 180 DAYS AFTER ENACTMENT.—In the
16 case of a unit described in clause
17 (ii)(III), the baseline average mercury
18 content per mmBtu of fuel consumed
19 by a unit shall be determined using
20 the best available data from the De-
21 partment of the Interior and the De-
22 partment of Energy that characterize
23 the average mercury content of the
24 fuel consumed by the unit—

1 “(aa) during the months
2 used for the extrapolation under
3 clause (ii)(III); or

4 “(bb) based on the average
5 mercury content of fuel con-
6 sumed by other units that are of
7 similar design and capacity.

8 “(IV) UNITS BEGINNING COM-
9 MERCIAL OPERATION MORE THAN 180
10 DAYS AFTER ENACTMENT.—In the
11 case of a unit described in clause
12 (ii)(IV), the baseline average mercury
13 content per mmBtu of fuel consumed
14 by a unit shall be determined using
15 the best available data from the De-
16 partment of the Interior and the De-
17 partment of Energy, or data submit-
18 ted by the unit under subparagraph
19 (B)(iii), that characterize the average
20 mercury content of the fuel consumed
21 by the unit based on the maximum
22 design capacity for the unit.

23 “(V) ESTIMATED DATA.—If mer-
24 cury content data described in clauses
25 (I) through (IV) are not available, the

1 baseline average mercury content shall
2 be estimated using the average mer-
3 cury content of fossil fuel from mines
4 or wells in the geographic region of
5 each mine or well that supplies the
6 unit.

7 “(4) DISPOSAL OF MERCURY CAPTURED
8 THROUGH EMISSION CONTROLS.—

9 “(A) IN GENERAL.—

10 “(i) CAPTURED OR RECOVERED MER-
11 CURY.—The regulations promulgated by
12 the Administrator under paragraph (1)(A)
13 shall ensure that mercury that is captured
14 or recovered through the use of an emis-
15 sion control, coal cleaning, or another
16 method is disposed of in a manner that en-
17 sures that—

18 “(I) the hazards from mercury
19 are not transferred from 1 environ-
20 mental medium to another; and

21 “(II) there is no release of mer-
22 cury into the environment (as the
23 terms ‘release’ and ‘environment’ are
24 defined in section 101 of the Com-
25 prehensive Environmental Response,

1 Compensation, and Liability Act of
2 1980 (42 U.S.C. 9601)).

3 “(ii) MERCURY-CONTAINING SLUDGES
4 AND WASTES.—The regulations promul-
5 gated by the Administrator under para-
6 graph (1)(A) shall ensure that mercury-
7 containing sludges and wastes are handled
8 and disposed of in accordance with all ap-
9 plicable Federal and State laws (including
10 regulations).

11 “(B) RESEARCH PROGRAM.—To promote
12 permanent and cost-effective disposal of mer-
13 cury from electric utility steam generating
14 units, the Administrator shall establish a pro-
15 gram of long-term research to develop and dis-
16 seminate information on methods and tech-
17 niques such as separating, solidifying, recycling,
18 and encapsulating mercury-bearing waste so
19 that mercury does not volatilize, migrate to
20 ground water or surface water, or contaminate
21 the soil.

22 “(5) OTHER REQUIREMENTS.—An emission
23 standard or other requirement promulgated under
24 this subsection does not diminish or replace any re-
25 quirement of a more stringent emission limitation or

1 other applicable requirement established under this
 2 Act or a standard issued under State law.

3 “(6) PUBLIC REPORTING OF DATA PERTAINING
 4 TO EMISSIONS OF MERCURY.—

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

11 “(B) SOURCE OF DATA.—The emission
 12 data shall be taken from the monitoring and
 13 analysis reports submitted under paragraph
 14 (3)(C).”.

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

18 Section 112 of the Clean Air Act (as amended by sec-
 19 tion 3) is amended by inserting after subsection (s) the
 20 following:

21 “(t) MERCURY EMISSION STANDARDS FOR COAL-
 22 AND OIL-FIRED COMMERCIAL AND INDUSTRIAL BOILER
 23 UNITS.—

24 “(1) IN GENERAL.—

1 “(A) REGULATIONS.—Not later than 180
2 days after the date of enactment of this sub-
3 paragraph, the Administrator shall promulgate
4 regulations to establish standards for the emis-
5 sion of mercury and mercury compounds (col-
6 lectively referred to in this subsection as ‘mer-
7 cury’) applicable to existing and new coal- and
8 oil-fired commercial and industrial boiler units
9 that have a maximum design heat input capac-
10 ity of 10 mmBtu per hour or greater.

11 “(B) PERMIT REQUIREMENT.—Not later
12 than 2 years after the date of enactment of this
13 subparagraph, each coal- or oil-fired commercial
14 or industrial boiler unit shall have an enforce-
15 able permit issued under title V that complies
16 with this subsection.

17 “(C) PROCEDURES AND SCHEDULES FOR
18 COMPLIANCE WITH STANDARDS.—Each coal- or
19 oil-fired commercial or industrial boiler unit
20 shall achieve compliance with the mercury emis-
21 sion standards established under subparagraph
22 (A) in accordance with the procedures and
23 schedules established under subsection (i).

24 “(2) STANDARDS AND METHODS.—

1 “(A) MINIMUM REQUIRED EMISSION RE-
2 DUCTION.—Subject to subparagraph (C), the
3 emission standards established under paragraph
4 (1)(A) shall require that each coal- or oil-fired
5 commercial or industrial boiler unit reduce its
6 annual poundage of mercury emitted, as cal-
7 culated under subparagraph (B), below its mer-
8 cury emission baseline, as calculated under
9 paragraph (3)(D), by not less than 95 percent.

10 “(B) CALCULATION OF ANNUAL POUND-
11 AGE OF MERCURY EMITTED.—

12 “(i) IN GENERAL.—For each coal- or
13 oil-fired commercial or industrial boiler
14 unit (referred to in this subparagraph as a
15 ‘unit’) and each calendar year, the Admin-
16 istrator shall calculate the poundage of
17 mercury emitted per unit for the calendar
18 year, which shall be equal to the product
19 obtained by multiplying—

20 “(I) the fuel consumption deter-
21 mined under clause (ii) for the unit
22 for the calendar year; by

23 “(II) the average mercury con-
24 tent determined under clause (iii) for
25 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

1 Department of Energy are not avail-
2 able, the average mercury content
3 shall be estimated using the average
4 mercury content of coal mined or oil
5 produced in the geographic region of
6 each mine or well that supplies the
7 unit.

8 “(C) EMISSION TRADING WITHIN A FACIL-
9 ITY.—

10 “(i) IN GENERAL.—For the purpose
11 of this subsection, taking into consider-
12 ation the cost of achieving the emission re-
13 duction, the Administrator may allow emis-
14 sion trading among the coal- and oil-fired
15 commercial and industrial boiler units con-
16 tained in a facility at a single site if the
17 aggregate annual reduction from all such
18 units at the facility is not less than 95 per-
19 cent.

20 “(ii) UNDERLYING DATA.—In carry-
21 ing out clause (i), the Administrator shall
22 use mercury emission data calculated
23 under paragraph (3)(D).

24 “(D) CONTROL METHODS.—For the pur-
25 pose of achieving compliance with the emission

standards established under paragraph (1)(A),
the Administrator shall authorize methods of
control of mercury emissions, including meas-
ures 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 mer-
cury emissions when released from a proc-
ess, stack, storage, or fugitive emission
point;

“(iv) consist of design, equipment,
work practice, or operational standards
(including requirements for operator train-
ing 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 CONDI-
TIONS.—

1 “(A) IN GENERAL.—Each permit issued in
2 accordance with paragraph (1)(B) shall in-
3 clude—

4 “(i) enforceable mercury emission
5 standards;

6 “(ii) a schedule of compliance;

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

11 “(iv) such other conditions as the Ad-
12 ministrator determines are necessary to en-
13 sure compliance with this subsection and
14 each applicable implementation plan under
15 section 110.

16 “(B) MONITORING AND ANALYSIS.—

17 “(i) PROCEDURES AND METHODS.—
18 The regulations promulgated by the Ad-
19 ministrator under paragraph (1)(A) shall
20 prescribe procedures and methods for—

21 “(I) monitoring and analysis for
22 mercury; and

23 “(II) determining compliance
24 with this subsection.

1 “(ii) INFORMATION.—Application of
2 the procedures and methods shall result in
3 reliable and timely information for deter-
4 mining compliance.

5 “(iii) OTHER REQUIREMENTS.—

6 “(I) IN GENERAL.—The require-
7 ments for monitoring and analysis
8 under this subparagraph shall in-
9 clude—

10 “(aa) such requirements
11 that result in a representative de-
12 termination of mercury in ash
13 and sludge; and

14 “(bb) such combination of
15 requirements for continuous or
16 other reliable and representative
17 emission monitoring methods
18 that results in a representative
19 determination of mercury in fuel
20 as received by each coal- or oil-
21 fired commercial or industrial
22 boiler unit;

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

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

3 “(II) MINIMUM REQUIREMENT.—

4 If, under subclause (I)(bb), the Ad-
5 ministrator does not require a coal- or
6 oil-fired commercial or industrial boil-
7 er unit to use direct emission monitor-
8 ing methods, the requirements under
9 subclause (I)(bb) shall, at a minimum,
10 result in representative determinations
11 of mercury in fuel as received by the
12 boiler unit at such frequencies as are
13 sufficient to determine whether com-
14 pliance with this subsection is contin-
15 uous.

16 “(iv) EFFECT ON OTHER LAW.—

17 Nothing in this subsection affects any con-
18 tinuous emission monitoring requirement
19 of title IV or any other provision of this
20 Act.

21 “(C) INSPECTION, ENTRY, MONITORING,

22 CERTIFICATION, AND REPORTING.—

23 “(i) IN GENERAL.—Each permit

24 issued in accordance with paragraph

25 (1)(B) shall specify inspection, entry, mon-

1 itoring, compliance certification, and re-
2 porting requirements to ensure compliance
3 with the permit terms and conditions.

4 “(ii) CONFORMITY WITH OTHER REG-
5 ULATIONS.—The monitoring and reporting
6 requirements shall conform to each appli-
7 cable regulation under subparagraph (B).

8 “(iii) SIGNATURE.—Each report re-
9 quired under clause (i) and subparagraph
10 (B)(iii) shall be signed by a responsible of-
11 ficial of the coal- or oil-fired commercial or
12 industrial boiler unit, who shall certify the
13 accuracy of the report.

14 “(D) MERCURY EMISSION BASELINE.—

15 “(i) IN GENERAL.—For each coal- or
16 oil-fired commercial or industrial boiler
17 unit (referred to in this subparagraph as a
18 ‘unit’), the Administrator shall calculate
19 the baseline annual average poundage of
20 mercury emitted per unit, which shall be
21 equal to the product obtained by multiply-
22 ing—

23 “(I) the baseline fuel consump-
24 tion determined under clause (ii) for
25 the unit; by

1 “(II) the baseline average mer-
2 cury content determined under clause
3 (iii) for the unit.

4 “(ii) BASELINE FUEL CONSUMP-
5 TION.—

6 “(I) UNITS IN COMMERCIAL OP-
7 ERATION BEFORE JANUARY 1, 1995.—
8 For each unit that began commercial
9 operation before January 1, 1995, the
10 baseline fuel consumption shall be
11 equal to the annual average quantity
12 of millions of British thermal units
13 (referred to in this subparagraph as
14 ‘mmBtu’s’) consumed by the unit dur-
15 ing the period of calendar years 1995,
16 1996, and 1997, as submitted annu-
17 ally to the Secretary of Energy on De-
18 partment of Energy Forms EIA-3
19 and EIA-846 (A,B,C) (referred to in
20 this clause as the ‘Forms’).

21 “(II) UNITS BEGINNING COM-
22 MERCIAL OPERATION BETWEEN JANU-
23 ARY 1, 1995, AND 180 DAYS AFTER EN-
24 ACTMENT.—Subject to subclause
25 (III), for each unit that begins com-

1 mercial operation between January 1,
2 1995, and the date that is 180 days
3 after the date of enactment of this
4 subparagraph, the baseline fuel con-
5 sumption shall be based on the annual
6 average of the fuel use data submitted
7 on the Forms for each full year of
8 commercial operation that begins on
9 or after January 1, 1995.

10 “(III) UNITS IN COMMERCIAL
11 OPERATION LESS THAN 1 YEAR AS OF
12 180 DAYS AFTER ENACTMENT.—For
13 each unit that has not been in com-
14 mercial operation for at least 1 year
15 as of the date that is 180 days after
16 the date of enactment of this subpara-
17 graph, the Administrator may deter-
18 mine an interim baseline fuel con-
19 sumption by—

20 “(aa) extrapolating from
21 monthly fuel use data available
22 for the unit; or

23 “(bb) assigning a baseline
24 fuel consumption based on the
25 annual average of the fuel use

1 data submitted on the Forms for
2 other units that are of similar de-
3 sign and capacity.

4 “(IV) UNITS BEGINNING COM-
5 Mercial OPERATION MORE THAN 180
6 DAYS AFTER ENACTMENT.—For each
7 unit that begins commercial operation
8 more than 180 days after the date of
9 enactment of this subparagraph, the
10 application for a permit issued in ac-
11 cordance with paragraph (1)(B) for
12 the unit shall include an initial base-
13 line fuel consumption that is based on
14 the maximum design capacity for the
15 unit.

16 “(V) RECALCULATION AFTER EX-
17 TENDED PERIOD OF COMMERCIAL OP-
18 ERATION.—At such time as a unit de-
19 scribed in any of subclauses (II)
20 through (IV) has submitted fuel use
21 data for 3 consecutive years of com-
22 mercial operation on the Forms, the
23 Administrator shall recalculate the
24 baseline fuel consumption and make
25 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, 1995.—

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, 1995, 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, 1995.

“(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

1 characterize the average mercury con-
2 tent of the fuel consumed by the
3 unit—

4 “(aa) during the months
5 used for the extrapolation under
6 clause (ii)(III); or

7 “(bb) based on the average
8 mercury content of fuel con-
9 sumed by other units that are of
10 similar design and capacity.

11 “(IV) UNITS BEGINNING COM-
12 Mercial operation more than 180
13 days after enactment.—In the
14 case of a unit described in clause
15 (ii)(IV), the baseline average mercury
16 content per mmBtu of fuel consumed
17 by a unit shall be determined using
18 the best available data from the De-
19 partment of the Interior and the De-
20 partment of Energy (as submitted to
21 the Secretary of Energy on Depart-
22 ment of Energy Form EIA-3A), or
23 data submitted by the unit under sub-
24 paragraph (B)(iii), that characterize
25 the average mercury content of the

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

4 “(V) ESTIMATED DATA.—If mer-
5 cury content data described in clauses
6 (I) through (IV) are not available, the
7 baseline average mercury content shall
8 be estimated using the average mer-
9 cury content of coal mined or oil pro-
10 duced in the geographic region of each
11 mine or well that supplies the unit.

12 “(4) DISPOSAL OF MERCURY CAPTURED
13 THROUGH EMISSION CONTROLS.—

14 “(A) IN GENERAL.—

15 “(i) CAPTURED OR RECOVERED MER-
16 CURY.—The regulations promulgated by
17 the Administrator under paragraph (1)(A)
18 shall ensure that mercury that is captured
19 or recovered through the use of an emis-
20 sion control, coal cleaning, or another
21 method is disposed of in a manner that en-
22 sures that—

23 “(I) the hazards from mercury
24 are not transferred from 1 environ-
25 mental medium to another; and

1 “(II) there is no release of mer-
2 cury into the environment (as the
3 terms ‘release’ and ‘environment’ are
4 defined in section 101 of the Com-
5 prehensive Environmental Response,
6 Compensation, and Liability Act of
7 1980 (42 U.S.C. 9601)).

8 “(ii) MERCURY-CONTAINING SLUDGES
9 AND WASTES.—The regulations promul-
10 gated by the Administrator under para-
11 graph (1)(A) shall ensure that mercury-
12 containing sludges and wastes are handled
13 and disposed of in accordance with all ap-
14 plicable Federal and State laws (including
15 regulations).

16 “(B) RESEARCH PROGRAM.—To promote
17 permanent and cost-effective disposal of mer-
18 cury from coal- and oil-fired commercial and in-
19 dustrial boiler units, the Administrator shall es-
20 tablish a program of long-term research to de-
21 velop and disseminate information on methods
22 and techniques such as separating, solidifying,
23 recycling, and encapsulating mercury-bearing
24 waste so that mercury does not volatilize, mi-

1 grate to ground water or surface water, or con-
2 taminate the soil.

3 “(5) OTHER REQUIREMENTS.—An emission
4 standard or other requirement promulgated under
5 this subsection does not diminish or replace any re-
6 quirement of a more stringent emission limitation or
7 other applicable requirement established under this
8 Act or a standard issued under State law.

9 “(6) PUBLIC REPORTING OF DATA PERTAINING
10 TO EMISSIONS OF MERCURY.—

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

17 “(B) SOURCE OF DATA.—The emission
18 data shall be taken from the monitoring and
19 analysis reports submitted under paragraph
20 (3)(C).”.

21 **SEC. 5. MERCURY EMISSION STANDARDS FOR SOLID**
22 **WASTE INCINERATION UNITS.**

23 Section 129(e) of the Clean Air Act (42 U.S.C.
24 7429(e)) is amended—

1 (1) by striking “Beginning (1) 36” and insert-
2 ing the following:

3 “(1) IN GENERAL.—Beginning (A) 36”;

4 (2) in the first sentence, by redesignating para-
5 graph (2) as subparagraph (B); and

6 (3) by adding at the end the following:

7 “(2) SEPARATION OF MERCURY-CONTAINING
8 ITEMS.—

9 “(A) PUBLICATION OF LIST.—

10 “(i) IN GENERAL.—Not later than
11 180 days after the date of enactment of
12 this subparagraph, the Administrator shall
13 publish a list of mercury-containing items
14 that shall be separated and removed from
15 the waste streams that feed solid waste in-
16 cineration units.

17 “(ii) REQUIRED ITEMS.—The list
18 shall include mercury-containing items
19 such as fluorescent light bulbs, batteries,
20 pharmaceuticals, laboratory chemicals and
21 reagents, electrical devices such as thermo-
22 stats, relays, and switches, and medical
23 and scientific instruments.

24 “(iii) LABELING REQUIREMENT.—

1 “(I) IN GENERAL.—Except as
2 provided in subclause (II), to facilitate
3 the process of separating and remov-
4 ing items listed under clause (i), each
5 manufacturer of a listed item shall en-
6 sure that each item is clearly labeled
7 to indicate that the product contains
8 mercury.

9 “(II) BUTTON CELL BAT-
10 TERIES.—In the case of button cell
11 batteries for which, due to size con-
12 straints, labeling described in sub-
13 clause (I) is not practicable, the pack-
14 aging shall indicate that the product
15 contains mercury.

16 “(B) MONITORING AND ANALYSIS.—

17 “(i) PROCEDURES AND METHODS.—
18 Not later than 180 days after the date of
19 enactment of this subparagraph, the Ad-
20 ministrator shall promulgate regulations
21 prescribing procedures and methods for—

22 “(I) monitoring and analysis for
23 mercury emissions from solid waste
24 combustion flue gases; and

1 “(II) determining compliance
2 with this paragraph.

3 “(ii) INFORMATION.—Application of
4 the procedures and methods shall result in
5 reliable and timely information for deter-
6 mining compliance.

7 “(C) PLAN.—

8 “(i) REQUIREMENT.—Not later than
9 1 year after the date of enactment of this
10 subparagraph, each solid waste inciner-
11 ation unit that operates pursuant to a per-
12 mit described in paragraph (1) shall sub-
13 mit for review and approval by the Admin-
14 istrator (or, in the case of a solid waste in-
15 cineration unit located in a State acting
16 under a permit program approved under
17 title V, the State) a plan for—

18 “(I) separating and removing
19 mercury-containing items listed by the
20 Administrator under subparagraph
21 (A) from the waste streams that feed
22 the solid waste incineration unit;

23 “(II) subject to subtitle C of the
24 Solid Waste Disposal Act (42 U.S.C.
25 6921 et seq.), transferring the sepa-

1 rated waste to a recycling facility or a
2 treatment, storage, or disposal facility
3 permitted under that subtitle;

4 “(III) monitoring and reporting
5 on compliance with the plan; and

6 “(IV) achieving full compliance
7 with the plan not later than 18
8 months after the date of approval of
9 the plan in accordance with clause
10 (ii).

11 “(ii) PLAN APPROVAL.—

12 “(I) DEADLINE.—The Adminis-
13 trator (or the State) shall determine
14 whether to approve or disapprove a
15 plan submitted under clause (i) not
16 later than 180 days after receipt of
17 the plan.

18 “(II) PREFERENCE.—In deter-
19 mining whether to approve a plan, the
20 Administrator (or the State) shall give
21 preference to recycling or stabilization
22 of mercury-containing items over dis-
23 posal of the items.

24 “(iii) AMENDED PLAN.—

1 “(I) SUBMISSION.—If the Admin-
2 istrator (or the State) disapproves a
3 plan submitted under clause (i), the
4 solid waste incineration unit may sub-
5 mit an amended plan within 90 days
6 after the date of disapproval.

7 “(II) APPROVAL.—The Adminis-
8 trator (or the State) shall approve or
9 disapprove the amended plan within
10 30 days after receipt of the plan.

11 “(iv) PLAN BY ADMINISTRATOR (OR
12 STATE).—

13 “(I) IN GENERAL.—If an amend-
14 ed plan is not submitted to the Ad-
15 ministrator (or the State) within 90
16 days after the date of disapproval, or
17 if an amended plan has been submit-
18 ted and subsequently disapproved, the
19 Administrator (or the State) shall
20 issue a determination that it is nec-
21 essary for the Administrator (or the
22 State) to assume the duties of the
23 solid waste incineration unit concern-
24 ing the plan.

1 “(II) PLAN.—Not later than 180
2 days after issuing the determination,
3 the Administrator (or the State) shall
4 develop, publish in the Federal Reg-
5 ister, implement, and enforce a plan
6 for the solid waste incineration unit
7 that meets the criteria specified in
8 clause (i) and ensures that full com-
9 pliance with the plan is achieved not
10 later than 18 months after the date of
11 publication of the plan.

12 “(v) ENFORCEABILITY.—Upon ap-
13 proval by the Administrator (or the State)
14 of a plan submitted under clause (i), or
15 upon publication of a plan developed by
16 the Administrator (or the State) under
17 clause (iv), the plan shall be considered to
18 be an enforceable modification to any exist-
19 ing or new permit described in paragraph
20 (1) for the solid waste incineration unit.

21 “(D) PERMIT REQUIREMENTS.—

22 “(i) IN GENERAL.—Each permit de-
23 scribed in paragraph (1) shall specify in-
24 spection, entry, monitoring, compliance
25 certification, and reporting requirements to

1 ensure compliance with the permit terms
2 and conditions, including a requirement
3 that the permittee submit to the permit-
4 ting authority, not less often than every 90
5 days, the results of any required monitor-
6 ing.

7 “(ii) SIGNATURE.—Each report re-
8 quired under clause (i) shall be signed by
9 a responsible official of the solid waste in-
10 cineration unit or by a municipal official,
11 who shall certify the accuracy of the re-
12 port.

13 “(E) OTHER REQUIREMENTS.—An emis-
14 sion standard or other requirement promulgated
15 under this subsection does not diminish or re-
16 place any requirement of a more stringent emis-
17 sion limitation or other applicable requirement
18 established under this Act or a standard issued
19 under State law.

20 “(F) PUBLIC REPORTING OF DATA PER-
21 TAINING TO EMISSIONS OF MERCURY.—

22 “(i) IN GENERAL.—The Administrator
23 shall annually make available to the public,
24 through 1 or more published reports and 1
25 or more forms of electronic media, facility-

1 specific mercury emission data for each
2 solid waste incineration unit.

3 “(ii) SOURCE OF DATA.—The emis-
4 sion data shall be taken from the monitor-
5 ing and analysis reports submitted under
6 subparagraph (D).”.

7 **SEC. 6. MERCURY EMISSION STANDARDS FOR CHLOR-AL-**
8 **KALI PLANTS.**

9 Section 112 of the Clean Air Act (as amended by sec-
10 tion 4) is amended by inserting after subsection (t) the
11 following:

12 “(u) MERCURY EMISSION STANDARDS FOR CHLOR-
13 ALKALI PLANTS.—

14 “(1) IN GENERAL.—

15 “(A) REGULATIONS.—Not later than 180
16 days after the date of enactment of this sub-
17 paragraph, the Administrator shall promulgate
18 regulations to establish standards for the direct
19 and fugitive emission of mercury and mercury
20 compounds (collectively referred to in this sub-
21 section as ‘mercury’) applicable to existing and
22 new chlor-alkali plants that use the mercury cell
23 production process (referred to in this sub-
24 section as ‘mercury cell chlor-alkali plants’).

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

6 “(C) PROCEDURES AND SCHEDULES FOR
7 COMPLIANCE WITH STANDARDS.—Each mer-
8 cury cell chlor-alkali plant shall achieve compli-
9 ance with the mercury emission standards es-
10 tablished under subparagraph (A) in accordance
11 with the procedures and schedules established
12 under subsection (i).

13 “(2) STANDARDS AND METHODS.—

14 “(A) MINIMUM REQUIRED EMISSION RE-
15 DUCTION.—The emission standards established
16 under paragraph (1)(A) shall require that each
17 mercury cell chlor-alkali plant reduce its annual
18 poundage of direct and fugitive mercury emit-
19 ted below its mercury emission baseline, as de-
20 termined by the Administrator, by not less than
21 95 percent.

22 “(B) CONTROL METHODS.—For the pur-
23 pose of achieving compliance with the emission
24 standards established under paragraph (1)(A),
25 the Administrator shall authorize methods of

1 control of mercury emissions, including meas-
2 ures that—

3 “(i) reduce the volume of, or eliminate
4 emissions of, mercury through a process
5 change, substitution of material, or other
6 method;

7 “(ii) enclose systems or processes to
8 eliminate mercury emissions;

9 “(iii) collect, capture, or treat mer-
10 cury emissions when released from a proc-
11 ess, stack, storage, or fugitive emission
12 point, or through evaporation of a spill;

13 “(iv) consist of design, equipment,
14 manufacturing process, work practice, or
15 operational standards (including require-
16 ments for operator training or certification
17 or spill prevention) in accordance with sub-
18 section (h); or

19 “(v) consist of a combination of the
20 measures described in clauses (i) through
21 (iv).

22 “(3) PERMIT REQUIREMENTS AND CONDI-
23 TIONS.—

1 “(A) IN GENERAL.—Each permit issued in
2 accordance with paragraph (1)(B) shall in-
3 clude—

4 “(i) enforceable mercury emission
5 standards;

6 “(ii) a schedule of compliance;

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

11 “(iv) such other conditions as the Ad-
12 ministrator determines are necessary to en-
13 sure compliance with this subsection and
14 each applicable implementation plan under
15 section 110.

16 “(B) MONITORING AND ANALYSIS.—

17 “(i) PROCEDURES AND METHODS.—
18 The regulations promulgated by the Ad-
19 ministrator under paragraph (1)(A) shall
20 prescribe procedures and methods for—

21 “(I) monitoring and analysis for
22 mercury; and

23 “(II) determining compliance
24 with this subsection.

1 “(ii) INFORMATION.—Application of
2 the procedures and methods shall result in
3 reliable and timely information for deter-
4 mining compliance.

5 “(iii) EFFECT ON OTHER LAW.—
6 Nothing in this subsection affects any con-
7 tinuous emission monitoring requirement
8 of title IV or any other provision of this
9 Act.

10 “(C) INSPECTION, ENTRY, MONITORING,
11 CERTIFICATION, AND REPORTING.—

12 “(i) IN GENERAL.—Each permit
13 issued in accordance with paragraph
14 (1)(B) shall specify inspection, entry, mon-
15 itoring, compliance certification, and re-
16 porting requirements to ensure compliance
17 with the permit terms and conditions.

18 “(ii) CONFORMITY WITH OTHER REG-
19 ULATIONS.—The monitoring and reporting
20 requirements shall conform to each appli-
21 cable regulation under subparagraph (B).

22 “(iii) SIGNATURE.—Each report re-
23 quired under clause (i) shall be signed by
24 a responsible official of the mercury cell

1 chlor-alkali plant, who shall certify the ac-
2 curacy of the report.

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

5 “(A) IN GENERAL.—

6 “(i) CAPTURED OR RECOVERED MER-
7 CURY.—The regulations promulgated by
8 the Administrator under paragraph (1)(A)
9 shall ensure that mercury that is captured
10 or recovered through the use of an emis-
11 sion control or another method is disposed
12 of in a manner that ensures that—

13 “(I) the hazards from mercury
14 are not transferred from 1 environ-
15 mental medium to another; and

16 “(II) there is no release of mer-
17 cury into the environment (as the
18 terms ‘release’ and ‘environment’ are
19 defined in section 101 of the Com-
20 prehensive Environmental Response,
21 Compensation, and Liability Act of
22 1980 (42 U.S.C. 9601)).

23 “(ii) MERCURY-CONTAINING
24 WASTES.—The regulations promulgated by
25 the Administrator under paragraph (1)(A)

1 shall ensure that mercury-containing
2 wastes are handled and disposed of in ac-
3 cordance with all applicable Federal and
4 State laws (including regulations).

5 “(B) RESEARCH PROGRAM.—To promote
6 permanent and cost-effective disposal of mer-
7 cury from mercury cell chlor-alkali plants, the
8 Administrator shall establish a program of long-
9 term research to develop and disseminate infor-
10 mation on methods and techniques such as sep-
11 arating, solidifying, recycling, and encapsulating
12 mercury-bearing waste so that mercury does
13 not volatilize, migrate to ground water or sur-
14 face water, or contaminate the soil.

15 “(5) OTHER REQUIREMENTS.—An emission
16 standard or other requirement promulgated under
17 this subsection does not diminish or replace any re-
18 quirement of a more stringent emission limitation or
19 other applicable requirement established under this
20 Act or a standard issued under State law.

21 “(6) PUBLIC REPORTING OF DATA PERTAINING
22 TO EMISSIONS OF MERCURY.—

23 “(A) IN GENERAL.—The Administrator
24 shall annually make available to the public,
25 through 1 or more published reports and 1 or

1 more forms of electronic media, facility-specific
 2 mercury emission data for each mercury cell
 3 chlor-alkali plant.

4 “(B) SOURCE OF DATA.—The emission
 5 data shall be taken from the monitoring and
 6 analysis reports submitted under paragraph
 7 (3)(C).”.

8 **SEC. 7. MERCURY EMISSION STANDARDS FOR PORTLAND**
 9 **CEMENT PLANTS.**

10 Section 112 of the Clean Air Act (as amended by sec-
 11 tion 6) is amended by inserting after subsection (u) the
 12 following:

13 “(v) MERCURY EMISSION STANDARDS FOR PORT-
 14 LAND CEMENT PLANTS.—

15 “(1) IN GENERAL.—

16 “(A) REGULATIONS.—Not later than 180
 17 days after the date of enactment of this sub-
 18 paragraph, the Administrator shall promulgate
 19 regulations—

20 “(i) to establish standards for the
 21 control of direct dust emission of mercury
 22 and mercury compounds (collectively re-
 23 ferred to in this subsection as ‘mercury’)
 24 from crushers, mills, dryers, kilns (exclud-
 25 ing emission from such burning of hazard-

1 ous waste-containing fuel in a cement kiln
2 as is regulated under section 3004(q) of
3 the Solid Waste Disposal Act (42 U.S.C.
4 6924(q)), and clinker coolers at existing
5 and new Portland cement plants; and

6 “(ii) to establish standards for the
7 control of fugitive dust emission of mer-
8 cury from storage, transport, charging,
9 and discharging operations at existing and
10 new Portland cement plants.

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

16 “(C) PROCEDURES AND SCHEDULES FOR
17 COMPLIANCE WITH STANDARDS.—Each Port-
18 land cement plant shall achieve compliance with
19 the mercury emission standards established
20 under subparagraph (A) in accordance with the
21 procedures and schedules established under
22 subsection (i).

23 “(2) STANDARDS AND METHODS.—

24 “(A) MINIMUM REQUIRED EMISSION RE-
25 DUCTION.—The emission standards established

1 under paragraph (1)(A) shall require that each
2 Portland cement plant reduce its annual pound-
3 age of direct and fugitive mercury emitted
4 below its mercury emission baseline, as deter-
5 mined by the Administrator, by not less than
6 95 percent.

7 “(B) CONTROL METHODS.—For the pur-
8 pose of achieving compliance with the emission
9 standards established under paragraph (1)(A),
10 the Administrator shall authorize methods of
11 control of mercury emissions, including meas-
12 ures that—

13 “(i) reduce the volume of, or eliminate
14 emissions of, mercury through a process
15 change, substitution of material, or other
16 method;

17 “(ii) enclose systems, processes, or
18 storage to eliminate mercury emissions;

19 “(iii) collect, capture, or treat mer-
20 cury emissions when released from a proc-
21 ess, stack, storage, or fugitive emission
22 point;

23 “(iv) consist of design, equipment,
24 manufacturing process, work practice, or
25 operational standards (including require-

ments 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.—

1 “(i) PROCEDURES AND METHODS.—

2 The regulations promulgated by the Ad-
3 ministrator under paragraph (1)(A) shall
4 prescribe procedures and methods for—

5 “(I) monitoring and analysis for
6 mercury; and

7 “(II) determining compliance
8 with this subsection.

9 “(ii) INFORMATION.—Application of
10 the procedures and methods shall result in
11 reliable and timely information for deter-
12 mining compliance.

13 “(iii) EFFECT ON OTHER LAW.—
14 Nothing in this subsection affects any con-
15 tinuous emission monitoring requirement
16 of title IV or any other provision of this
17 Act.

18 “(C) INSPECTION, ENTRY, MONITORING,
19 CERTIFICATION, AND REPORTING.—

20 “(i) IN GENERAL.—Each permit
21 issued in accordance with paragraph
22 (1)(B) shall specify inspection, entry, mon-
23 itoring, compliance certification, and re-
24 porting requirements to ensure compliance
25 with the permit terms and conditions.

1 “(ii) CONFORMITY WITH OTHER REG-
2 ULATIONS.—The monitoring and reporting
3 requirements shall conform to each appli-
4 cable regulation under subparagraph (B).

5 “(iii) SIGNATURE.—Each report re-
6 quired under clause (i) shall be signed by
7 a responsible official of the Portland ce-
8 ment plant, who shall certify the accuracy
9 of the report.

10 “(4) DISPOSAL OF MERCURY CAPTURED
11 THROUGH EMISSION CONTROLS.—

12 “(A) IN GENERAL.—

13 “(i) CAPTURED OR RECOVERED MER-
14 CURY.—The regulations promulgated by
15 the Administrator under paragraph (1)(A)
16 shall ensure that mercury that is captured
17 or recovered through the use of an emis-
18 sion control or another method is disposed
19 of in a manner that ensures that—

20 “(I) the hazards from mercury
21 are not transferred from 1 environ-
22 mental medium to another; and

23 “(II) there is no release of mer-
24 cury into the environment (as the
25 terms ‘release’ and ‘environment’ are

1 defined in section 101 of the Com-
2 prehensive Environmental Response,
3 Compensation, and Liability Act of
4 1980 (42 U.S.C. 9601)).

5 “(ii) MERCURY-CONTAINING
6 WASTES.—The regulations promulgated by
7 the Administrator under paragraph (1)(A)
8 shall ensure that mercury-containing
9 wastes are handled and disposed of in ac-
10 cordance with all applicable Federal and
11 State laws (including regulations).

12 “(B) RESEARCH PROGRAM.—To promote
13 permanent and cost-effective disposal of mer-
14 cury from Portland cement plants, the Adminis-
15 trator shall establish a program of long-term re-
16 search to develop and disseminate information
17 on methods and techniques such as separating,
18 solidifying, recycling, and encapsulating mer-
19 cury-bearing waste so that mercury does not
20 volatilize, migrate to ground water or surface
21 water, or contaminate the soil.

22 “(5) OTHER REQUIREMENTS.—An emission
23 standard or other requirement promulgated under
24 this subsection does not diminish or replace any re-
25 quirement of a more stringent emission limitation or

1 other applicable requirement established under this
2 Act or a standard issued under State law.

3 “(6) PUBLIC REPORTING OF DATA PERTAINING
4 TO EMISSIONS OF MERCURY.—

5 “(A) IN GENERAL.—The Administrator
6 shall annually make available to the public,
7 through 1 or more published reports and 1 or
8 more forms of electronic media, facility-specific
9 mercury emission data for each Portland ce-
10 ment plant.

11 “(B) SOURCE OF DATA.—The emission
12 data shall be taken from the monitoring and
13 analysis reports submitted under paragraph
14 (3)(C).”.

15 **SEC. 8. REPORT ON IMPLEMENTATION OF MERCURY EMIS-**
16 **SION STANDARDS FOR MEDICAL WASTE IN-**
17 **CINERATORS.**

18 (a) IN GENERAL.—Not later than December 31,
19 2000, the Administrator of the Environmental Protection
20 Agency shall submit to Congress a report on the extent
21 to which the annual poundage of mercury and mercury
22 compounds emitted by each medical waste incinerator in
23 the United States has been reduced below the baseline for
24 the medical waste incinerator determined under subsection
25 (b).

1 (b) BASELINE.—

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

8 (2) LACK OF ACTUAL DATA.—If the data de-
9 scribed in paragraph (1) are not available, the Ad-
10 ministrator shall develop an estimate of baseline
11 mercury emissions based on other sources of data
12 and the best professional judgment of the Adminis-
13 trator.

14 **SEC. 9. REPORT ON IMPLEMENTATION OF MERCURY EMIS-**
15 **SION STANDARDS FOR HAZARDOUS WASTE**
16 **COMBUSTORS.**

17 (a) IN GENERAL.—Not later than December 31,
18 2000, the Administrator of the Environmental Protection
19 Agency shall submit to Congress a report on the extent
20 to which the annual poundage of mercury and mercury
21 compounds emitted by each hazardous waste combustor
22 in the United States has been reduced below the baseline
23 for the hazardous waste combustor determined under sub-
24 section (b).

25 (b) BASELINE.—

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

7 (2) LACK OF ACTUAL DATA.—If the data de-
8 scribed in paragraph (1) are not available, the Ad-
9 ministrator shall develop an estimate of baseline
10 mercury emissions based on other sources of data
11 and the best professional judgment of the Adminis-
12 trator.

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

15 (a) IN GENERAL.—Not later than December 31,
16 1999, the Secretary of Defense shall submit to Congress
17 a report on the use of mercury and mercury compounds
18 by the Department of Defense.

19 (b) CONTENTS.—In the report, the Secretary of De-
20 fense shall describe—

21 (1) measures that the Department of Defense is
22 carrying out to reduce the use and emissions of mer-
23 cury and mercury compounds by the Department;
24 and

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

4 **SEC. 11. INTERNATIONAL ACTIVITIES.**

5 (a) STUDY AND REPORT.—Not later than December
6 31, 1999, the Administrator of the Environmental Protec-
7 tion Agency, in cooperation with appropriate representa-
8 tives of Canada and Mexico, shall study and submit to
9 Congress a report on the sources and extent of mercury
10 emissions in North America.

11 (b) REVIEW.—Before submitting the report to Con-
12 gress, the Administrator shall submit the report for—

13 (1) internal and external scientific peer review;
14 and

15 (2) review by the Science Advisory Board estab-
16 lished by section 8 of the Environmental Research,
17 Development, and Demonstration Authorization Act
18 of 1978 (42 U.S.C. 4365).

19 (c) REQUIRED ELEMENTS.—The report shall in-
20 clude—

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

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

1 (3) recommendations for pollution control meas-
2 ures, options, and strategies that, if implemented in-
3 dividually or jointly by the United States, Canada,
4 and Mexico, will eliminate or greatly reduce
5 transboundary atmospheric and surface water mer-
6 cury pollution in North America.

7 **SEC. 12. MERCURY RESEARCH.**

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

10 “(1) MERCURY RESEARCH.—

11 “(1) ESTABLISHMENT OF PROGRAMS.—The Ad-
12 ministrators shall establish—

13 “(A) a program to characterize and quan-
14 tify the potential mercury-related health effects
15 on high-risk populations (such as pregnant
16 women and their fetuses, women of childbearing
17 age, children, and individuals who subsist pri-
18 marily on fish); and

19 “(B) a mercury public awareness and pre-
20 vention program targeted at populations most
21 at risk from exposure to mercury.

22 “(2) STUDY OF IMPLEMENTATION OF MEAS-
23 URES TO CONTROL MERCURY EMISSIONS.—

24 “(A) ESTABLISHMENT OF ADVISORY COM-
25 MITTEE.—Not later than 3 years after the date

1 of enactment of this subsection, the Secretary
2 of Health and Human Services and the Admin-
3 istrator shall establish an advisory committee to
4 evaluate and prepare a report on the progress
5 made by the Federal Government, State and
6 local governments, industry, and other regu-
7 lated entities to implement and comply with the
8 mercury-related amendments to the Clean Air
9 Act (42 U.S.C. 7401 et seq.) made by the Om-
10 nibus Mercury Emissions Reduction Act of
11 1998.

12 “(B) MEMBERSHIP.—

13 “(i) IN GENERAL.—The advisory com-
14 mittee shall consist of at least 15 mem-
15 bers, of whom at least 1 member shall rep-
16 resent each of the following:

17 “(I) The Department of Health
18 and Human Services.

19 “(II) The Agency for Toxic Sub-
20 stances and Disease Registry.

21 “(III) The Food and Drug Ad-
22 ministration.

23 “(IV) The Environmental Protec-
24 tion Agency.

1 “(V) The National Academy of
2 Sciences.

3 “(VI) Native American popu-
4 lations.

5 “(VII) State and local govern-
6 ments.

7 “(VIII) Industry.

8 “(IX) Environmental organiza-
9 tions.

10 “(X) Public health organizations.

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

15 “(C) DUTIES.—The advisory committee
16 shall—

17 “(i) evaluate the adequacy and com-
18 pleteness of data collected and dissemi-
19 nated by the Environmental Protection
20 Agency and each State that reports on and
21 measures mercury contamination in the en-
22 vironment;

23 “(ii) make recommendations to the
24 Secretary of Health and Human Services
25 and the Administrator concerning—

1 “(I) changes necessary to im-
2 prove the quality and ensure consist-
3 ency from State to State of Federal
4 and State data collection, reporting,
5 and characterization of baseline envi-
6 ronmental conditions; and

7 “(II) methods for improving pub-
8 lic education, particularly among high-
9 risk populations (such as pregnant
10 women and their fetuses, women of
11 childbearing age, children, and indi-
12 viduals who subsist primarily on fish),
13 concerning the pathways and effects
14 of mercury contamination and con-
15 sumption; and

16 “(iii) not later than 4 years after the
17 date of enactment of this subsection, com-
18 pile and make available to the public,
19 through 1 or more published reports and 1
20 or more forms of electronic media, the
21 findings, recommendations, and supporting
22 data, including State-specific data, of the
23 advisory committee under this subpara-
24 graph.

25 “(D) COMPENSATION.—

1 “(i) IN GENERAL.—A member of the
2 advisory committee shall receive no com-
3 pensation by reason of the service of the
4 member on the advisory committee.

5 “(ii) TRAVEL EXPENSES.—A member
6 of the advisory committee shall be allowed
7 travel expenses, including per diem in lieu
8 of subsistence, at rates authorized for em-
9 ployees of agencies under subchapter I of
10 chapter 57 of title 5, United States Code,
11 while away from the home or regular place
12 of business of the member in the perform-
13 ance of services for the advisory commit-
14 tee.

15 “(E) DURATION OF ADVISORY COMMIT-
16 TEE.—The advisory committee—

17 “(i) shall terminate not earlier than
18 the date on which the Secretary of Health
19 and Human Services and the Adminis-
20 trator determine that the findings, rec-
21 ommendations, and supporting data pre-
22 pared by the advisory committee have been
23 made available to the public; and

24 “(ii) may, at the discretion of the Sec-
25 retary of Health and Human Services and

1 the Administrator, continue in existence
2 after that date to further carry out the du-
3 ties described in subparagraph (C).

4 “(F) APPLICABILITY OF FEDERAL ADVI-
5 SORY COMMITTEE ACT.—The Federal Advisory
6 Committee Act (5 U.S.C. App.) shall not apply
7 to the advisory committee established under
8 this paragraph.

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

13 “(3) REPORT ON MERCURY SEDIMENTATION
14 TRENDS.—Not later than 1 year after the date of
15 enactment of this subsection, the Administrator shall
16 submit to Congress a report that characterizes mer-
17 cury and mercury-compound sedimentation trends in
18 Lake Champlain, Chesapeake Bay, the Great Lakes,
19 the finger lakes region of upstate New York, Tampa
20 Bay, and other water bodies of concern (as deter-
21 mined by the Administrator).

22 “(4) EVALUATION OF FISH CONSUMPTION
23 ADVISORIES.—

1 “(A) IN GENERAL.—The Administrator
2 shall evaluate the adequacy, consistency, com-
3 pleteness, and public dissemination of—

4 “(i) data collected by the Environ-
5 mental Protection Agency and each State
6 concerning mercury contamination of fish;
7 and

8 “(ii) advisories to warn the public
9 about the consumption of mercury-con-
10 taminated fish (referred to in this para-
11 graph as ‘fish consumption advisories’).

12 “(B) IMPROVEMENT OF QUALITY AND
13 CONSISTENCY.—In conjunction with each State
14 or unilaterally, the Administrator shall imple-
15 ment any changes necessary to improve the
16 quality and ensure consistency from State to
17 State of Federal and State data collection, re-
18 porting, characterization of mercury contamina-
19 tion, and thresholds concerning mercury con-
20 tamination in fish above which fish consump-
21 tion advisories will be issued.

22 “(C) REPORTING.—Not later than 2 years
23 after the date of enactment of this subsection
24 and every 2 years thereafter, the Administrator
25 shall prepare and make available to the public,

1 through 1 or more published reports and 1 or
2 more forms of electronic media, information
3 providing detail by State, watershed, water
4 body, and river reach of mercury levels in fish
5 and any fish consumption advisories that have
6 been issued during the preceding 2-year period.

7 “(D) EFFECT ON STATE AUTHORITY.—
8 Nothing in this paragraph affects any authority
9 of a State to advise residents of the mercury
10 content of commercially sold foods and other
11 products.”.

○