

103^D CONGRESS
1ST SESSION

S. 1545

To authorize appropriations for environmental research, development, and demonstration for fiscal years 1994 through 1996, and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 14 (legislative day, OCTOBER 13), 1993

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

A BILL

To authorize appropriations for environmental research, development, and demonstration for fiscal years 1994 through 1996, 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,*

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

4 (a) SHORT TITLE.—This Act may be cited as the
5 “Environmental Research, Development, and Demonstra-
6 tion Authorization Act of 1993”.

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

- Sec. 1. Short title; table of contents.
- Sec. 2. Definitions.

- Sec. 3. General authorization.
 Sec. 4. Fundamental research programs.
 Sec. 5. Experimental program to stimulate competitive research.
 Sec. 6. Environmental Research and Demonstration Act language for NHEXAS.
 Sec. 7. Research on international environmental problems.
 Sec. 8. Pesticide research.
 Sec. 9. National Arid Climate Ground Water Research Center.
 Sec. 10. Environmental monitoring and assessment program.
 Sec. 11. Modernization program.
 Sec. 12. Repeal of 5-year research report requirement.
 Sec. 13. Science Advisory Board.
 Sec. 14. Miscellaneous authorization for cooperative agreements.
 Sec. 15. Research accomplishments report.
 Sec. 16. Technology transfer and information exchange.
 Sec. 17. Research to support the evaluation of health and ecological risk.
 Sec. 18. Lead research program.
 Sec. 19. Risk assessment research priorities.
 Sec. 20. Report on opportunities for defense technology transfer in development of environmentally sensitive products.
 Sec. 21. Financial assistance for research on drinking water disinfection.
 Sec. 22. Purchase of American-made equipment and products.

1 **SEC. 2. DEFINITIONS.**

2 As used in this Act:

3 (1) ADMINISTRATOR.—The term “Adminis-
 4 trator” means the Administrator of the Environ-
 5 mental Protection Agency.

6 (2) AGENCY.—The term “Agency” means the
 7 Environmental Protection Agency.

8 (3) SCIENCE ADVISORY BOARD.—The term
 9 “Science Advisory Board” means the Science Advi-
 10 sory Board established under section 8 of the Envi-
 11 ronmental Research, Development, Demonstration
 12 Authorization Act of 1976 (42 U.S.C. 4361).

13 **SEC. 3. GENERAL AUTHORIZATION.**

14 (a) ENVIRONMENTAL RESEARCH, DEVELOPMENT,
 15 AND DEMONSTRATION.—

1 (1) IN GENERAL.—There are authorized to be
2 appropriated for—

3 (A) environmental research, development,
4 and demonstration activities; and

5 (B) program management and support of
6 the Office of Research and Development,
7 to the Agency \$475,400,000 for fiscal year 1994,
8 \$520,000,000 for fiscal year 1995, and
9 \$575,000,000 for fiscal year 1996.

10 (2) AUTHORIZATIONS OF PROGRAMS AND AC-
11 TIVITIES.—Of the amounts specified in paragraph
12 (1), amounts not to exceed the following amounts
13 shall be used by the Administrator for the following
14 purposes:

15 (A) For air-related research—

16 (i) \$126,000,000 for fiscal year 1994;

17 (ii) \$119,000,000 for fiscal year 1995;

18 and

19 (iii) \$125,000,000 for fiscal year
20 1996.

21 (B) For water-related research—

22 (i) \$49,000,000 for fiscal year 1994;

23 (ii) \$45,300,000 for fiscal year 1995;

24 and

25 (iii) \$48,000,000 for fiscal year 1996.

- 1 (C) For toxic chemical-related research—
2 (i) \$76,000,000 for fiscal year 1994;
3 (ii) \$74,900,000 for fiscal year 1995;
4 and
5 (iii) \$75,000,000 for fiscal year 1996.
- 6 (D) For laboratory and field expenses—
7 (i) \$49,000,000 for fiscal year 1994;
8 (ii) \$47,400,000 for fiscal year 1995;
9 and
10 (iii) \$54,400,000 for fiscal year 1996.
- 11 (E) For headquarters expenses—
12 (i) \$5,400,000 for fiscal year 1994;
13 (ii) \$5,400,000 for fiscal year 1995;
14 and
15 (iii) \$5,500,000 for fiscal year 1996.
- 16 (F) For multimedia-related research ex-
17 penses—
18 (i) \$163,000,000, for fiscal year 1994;
19 (ii) \$225,000,000 for fiscal year 1995;
20 and
21 (iii) \$260,000,000 for fiscal year
22 1996.
- 23 (G) For program management expenses—
24 (i) \$7,000,000 for fiscal year 1994;

1 (ii) \$7,000,000 for fiscal year 1995;

2 and

3 (iii) \$7,100,000 for fiscal year 1996.

4 (3) EFFECT ON OTHER AUTHORIZATION.—

5 Nothing in this Act is intended to affect amounts
6 authorized for each of fiscal years 1994 through
7 1996 for Superfund research activities as authorized
8 by the Superfund Amendments and Reauthorization
9 Act of 1986 (Public Law 99–499; 100 Stat. 1613 et
10 seq.) and the amendments made by such Act.

11 (b) LIMITATION ON CLOSING OFFICES AND REDUC-
12 TIONS-IN-FORCE.—The Administrator shall not—

13 (1)(A) close any field station, regional office,
14 laboratory, or other research center; or

15 (B) permit any reduction-in-force; and

16 (2) finalize any closing or reduction,

17 unless at least 30 days prior to the issuing of a general
18 notice of the closing or reduction, the Administrator pro-
19 vides to the appropriate legislative and appropriations
20 committees of Congress written notice of the reasons for
21 the closing or reduction, the impact of the closing or re-
22 duction on the ability of the Administrator to carry out
23 this Act, the details of the reduction or closing, and other
24 information that the Administrator determines pertinent.

1 (c) AVAILABILITY.—Funds made available by appro-
2 priations pursuant to the authority provided by this Act
3 shall remain available for obligation or expenditure for
4 such periods as may be specified by Congress in making
5 the appropriations.

6 (d) LIMITATION ON APPROPRIATIONS.—Notwith-
7 standing any other provision of this Act, except as pro-
8 vided in section 21, no funds are authorized to be appro-
9 priated for any fiscal year after fiscal year 1996 for carry-
10 ing out the programs and activities for which funds are
11 authorized by this Act, or the amendments made by this
12 Act.

13 **SEC. 4. FUNDAMENTAL RESEARCH PROGRAMS.**

14 (a) ESTABLISHMENT.—

15 (1) IN GENERAL.—In addition to providing re-
16 search support for the regulatory needs of the pro-
17 gram offices of the Agency, the Administrator shall
18 establish separately identified research programs
19 consisting of fundamental ecological, health, and risk
20 reduction research.

21 (2) PURPOSE OF RESEARCH.—The research re-
22 ferred to in paragraph (1) shall be undertaken for
23 the purpose of generating fundamental knowledge
24 necessary to support efforts to identify, assess, and
25 mitigate serious environmental risks.

1 (b) AUTHORITY.—

2 (1) IN GENERAL.—In carrying out the fun-
3 damental research programs established under sub-
4 section (a), the Administrator may support research
5 concerning—

6 (A) environmental processes and trends;

7 (B) the identification and assessment of
8 potential risks to human health and the envi-
9 ronment; and

10 (C) approaches to prevent and reduce the
11 risks.

12 (2) ACTIVITIES OF THE ADMINISTRATOR.—The
13 Administrator is authorized to establish, acquire,
14 and maintain resources, expertise, and facilities nec-
15 essary for the advancement of the fundamental re-
16 search programs established pursuant to subsection
17 (a).

18 (c) REPORT OF THE ADMINISTRATOR.—Not later
19 than 2 years after the date of enactment of this Act, and
20 every 2 years thereafter, the Administrator shall prepare
21 and submit to Congress and the Science Advisory Board
22 a report that includes an assessment of the fundamental
23 research programs established pursuant to subsection (a).

24 (d) SCIENCE ADVISORY BOARD.—

1 (1) IN GENERAL.—The Science Advisory Board,
2 or a designated subcommittee of the Science Advi-
3 sory Board, shall—

4 (A) review the activities carried out by the
5 Administrator under the fundamental research
6 programs established under subsection (a);

7 (B)(i) make recommendations on the ap-
8 propriate balance between the fundamental re-
9 search and the programmatic research carried
10 out by the Administrator; and

11 (ii) not later than 2 years after making the
12 recommendations, and every 2 years thereafter,
13 update the recommendations; and

14 (C) make such other recommendations to
15 the Administrator with respect to the programs
16 established under subsection (a) as the Science
17 Advisory Board considers appropriate.

18 (2) REPORTS.—Not later than March 31, 1995,
19 and every 2 years thereafter, the Science Advisory
20 Board shall prepare and submit to the Adminis-
21 trator and to Congress a report that includes—

22 (A) an assessment of the most recent re-
23 port of the Administrator prepared pursuant to
24 subsection (c);

1 (B) the results of a review undertaken pur-
2 suant to paragraph (1); and

3 (C) the recommendations (including any
4 updated recommendations) made by the Science
5 Advisory Board pursuant to paragraphs (2) and
6 (3).

7 (e) CONFORMING AMENDMENT.—Section 2 of the
8 Environmental Research, Development, and Demonstra-
9 tion Authorization Act of 1981 is amended by striking
10 subsection (f).

11 **SEC. 5. EXPERIMENTAL PROGRAM TO STIMULATE COM-**
12 **PETITIVE RESEARCH.**

13 (a) DEFINITIONS.—As used in this section:

14 (1) ELIGIBLE STATE.—The term “eligible
15 State” means a State that received a planning grant
16 from the Administrator to conduct an experimental
17 program to stimulate competitive research for fiscal
18 year 1991 or 1992.

19 (2) EXPERIMENTAL PROGRAM.—The term “Ex-
20 perimental Program” means the Experimental Pro-
21 gram to Stimulate Competitive Research established
22 under subsection (b).

23 (b) EXPERIMENTAL PROGRAM.—

24 (1) IN GENERAL.—The Administrator, acting
25 through the Director, shall carry out an Experi-

1 mental Program to Stimulate Competitive Research
2 as part of the research and development programs of
3 the Agency.

4 (2) PURPOSES.—The purposes of the Experi-
5 mental Program shall be—

6 (A) to enhance the competitiveness within
7 the peer-review system of investigators from
8 academic institutions in eligible States; and

9 (B) to increase the probability of long-term
10 growth of competitive funding to investigators
11 at institutions from eligible States.

12 (3) PROGRAM ACTIVITIES.—In order to carry
13 out the purposes declared in paragraph (2), the Di-
14 rector shall provide for program activities. The pro-
15 gram activities may include competitive research
16 awards, scientific infrastructure development, and
17 graduate traineeships.

18 (4) ASSISTANCE.—In carrying out the Experi-
19 mental Program, the Director shall provide assist-
20 ance to each eligible State that—

21 (A) historically has received a relatively
22 small amount of Federal research and develop-
23 ment funding; and

24 (B) has demonstrated a commitment to de-
25 velop the research base of the State and im-

1 prove science and engineering research and edu-
2 cation programs at the institutions of higher
3 education of the State.

4 (c) GRADUATE TRAINEESHIPS.—Not more than 10
5 percent of the funds made available by appropriation to
6 carry out the Experimental Program for any fiscal year
7 may be used for graduate traineeships.

8 (d) FUNDING LEVELS.—For each of fiscal years
9 1994 through 1996, from the amounts authorized to be
10 appropriated under section 3(a)(1), the following amounts
11 may be used by the Administrator to carry out the re-
12 search programs authorized under this section:

13 (1) \$5,000,000 for fiscal year 1995.

14 (2) \$10,000,000 for fiscal year 1996.

15 (3) \$15,000,000 for fiscal year 1997.

16 **SEC. 6. ENVIRONMENTAL RESEARCH AND DEMONSTRATION ACT LANGUAGE FOR NHEXAS.**
17

18 (a) SURVEY DEFINED.—As used in this section, the
19 term “Survey” means the National Human Exposure As-
20 sessment Survey conducted by the Administrator pursuant
21 to this section.

22 (b) IN GENERAL.—

23 (1) NATIONAL HUMAN EXPOSURE ASSESSMENT
24 SURVEY.—The Administrator shall, in cooperation
25 with the heads of other Federal agencies, establish

1 a National Human Exposure Assessment Survey to
2 monitor and assess the extent and characteristics of
3 human exposure to harmful chemical substances.

4 (2) ACTIVITIES OF THE ADMINISTRATOR.—In
5 carrying out the program described in paragraph
6 (1), the Administrator is authorized to—

7 (A) conduct research, monitoring, assess-
8 ment, and demonstrations activities;

9 (B) cooperate with the appropriate officials
10 of other Federal agencies, State governments,
11 other governments and nonprofit organizations,
12 and other persons;

13 (C) collect such samples from humans and
14 environmental sources as are necessary to carry
15 out this section in accordance with accepted
16 and prudent scientific practices;

17 (D) develop and apply such monitoring,
18 collection, and storage techniques as are nec-
19 essary to accomplish the purposes of this sec-
20 tion;

21 (E) provide such facilities, staff, and
22 equipment as are necessary to carry out this
23 section;

24 (F) use Federal laboratories and centers;

1 (G) enter into a contract or cooperative
2 agreement with the appropriate official of a
3 Federal agency or department or agency of a
4 State or political subdivision of a State, or
5 other person; and

6 (H) provide the results of efforts under
7 this program to the persons referred to in sub-
8 paragraph (G).

9 (c) ISSUES.—At a minimum, in carrying out the Sur-
10 vey, the Administrator shall conduct or assist with re-
11 search, investigations, studies, surveys, or demonstrations
12 with respect to the following issues:

13 (1) The magnitude, duration, frequency, and
14 distribution of exposure to harmful chemical sub-
15 stances of the general population, identified geo-
16 graphic subunits, and groups that receive a high
17 level of exposure over time.

18 (2) Pathways of human exposure to harmful
19 chemical substances and a determination of which of
20 the pathways are most important.

21 (3) Exposure to harmful chemical substances
22 experienced by groups that are more biologically sus-
23 ceptible to harmful chemical substances than are
24 other groups in the general population.

1 (4) Emission sources, activity patterns, life-
2 styles characteristics, and other appropriate expo-
3 sure factors and the relative degree of contribution
4 of the factors to human exposure to harmful chemi-
5 cal substances.

6 (5) Changes in exposure to harmful chemical
7 substances over time.

8 (6) The quantity of people exposed on a local,
9 regional, and national basis to harmful chemical
10 substances.

11 (7) With respect to harmful chemical sub-
12 stances, the relationship between exposure and dose
13 to target tissues including uptake, metabolism, stor-
14 age, and elimination of substances of concern.

15 (8) The link between exposures to harmful
16 chemical substances and manifestation of health ef-
17 fects.

18 (9) The effectiveness in achieving reductions in
19 exposure to harmful chemicals of control strategies
20 before the date of the survey.

21 (10) The development of quality assurance
22 methods and techniques to ensure the reliability and
23 accuracy of exposure monitoring and evaluation.

24 (11) The development of such data manage-
25 ment and storage facilities as are necessary to—

1 (A) ensure a long-term record of monitor-
2 ing data; and

3 (B) provide access to the data by appro-
4 priate Federal agencies, State governments,
5 other governments, nonprofit organizations, and
6 other persons.

7 **SEC. 7. RESEARCH ON INTERNATIONAL ENVIRONMENTAL**
8 **PROBLEMS.**

9 The Administrator is authorized to—

10 (1) conduct research on the nature and impacts
11 of international environmental problems and ways to
12 respond to the problems; and

13 (2) provide technical and other assistance to
14 foreign countries and international entities to im-
15 prove the quality of the environment.

16 **SEC. 8. PESTICIDE RESEARCH.**

17 (a) DEFINITIONS.—As used in this section:

18 (1) FOOD.— The term “food” has the meaning
19 provided the term under section 201(f) of the Fed-
20 eral Food, Drug, and Cosmetic Act (21 U.S.C.
21 321(f)).

22 (2) PESTICIDE.—The term “pesticide” has the
23 meaning provided the term under section 2(u) of the
24 Federal Insecticide, Fungicide, and Rodenticide Act
25 (7 U.S.C. 136(u)).

1 (b) PESTICIDE EXPOSURE MONITORING
2 PROJECTS.—

3 (1) IN GENERAL.—

4 (A) MONITORING METHODOLOGIES.—The
5 Administrator shall develop and implement ef-
6 fective monitoring methodologies for measuring
7 the level of pesticides in—

8 (i) ambient air;

9 (ii) ground water;

10 (iii) soil;

11 (iv) food;

12 (v) indoor air (in residential dwellings
13 and workplaces); and

14 (vi) surface water.

15 (B) PROTOCOLS.—In developing the meth-
16 odologies described in subparagraph (A), the
17 Administrator shall specify appropriate proto-
18 cols for the effective implementation of the
19 methodologies.

20 (C) REPRESENTATIVE PESTICIDES.—

21 (i) IN GENERAL.—The Administrator
22 shall give priority to representative pes-
23 ticides—

24 (I) from a broad variety of chem-
25 ical classifications; and

1 (II) that are representative of
2 particular uses.

3 (ii) SELECTION OF SAMPLES.—In se-
4 lecting a sample of representative pes-
5 ticides under this subsection, the Adminis-
6 trator shall give priority to any pesticide
7 that is considered to pose a high level of
8 risk to human health.

9 (2) ROUTES OF EXPOSURE.—

10 (A) ASSESSMENT.—The Administrator
11 shall assess routes of human exposure to pes-
12 ticides.

13 (B) ROUTES OF EXPOSURE.—The Admin-
14 istrator shall address each route of exposure to
15 pesticides that the Administrator determines to
16 be a potential route of exposure through 1 or
17 more environmental media (as defined by the
18 Administrator).

19 (C) KNOWN PESTICIDES, USES, AND EXPO-
20 SURES.—In carrying out this paragraph, the
21 Administrator shall, to the extent practicable,
22 include research relating to all known pesticide
23 uses, and all individuals known to be exposed to
24 pesticides through exposure—

25 (i) in the workplace;

1 (ii) in and around residential dwell-
2 ings;

3 (iii) associated with recreational and
4 sports activities (including golf); and

5 (iv) from food consumption.

6 (D) PRIORITY FOR STUDY.—In carrying
7 out this paragraph, the Administrator shall give
8 priority to the study of routes of exposure relat-
9 ed to any pesticide with a chemical classifica-
10 tion or use that is considered to pose a high
11 level of risk to human health.

12 (E) HEALTHY MONITORING OF DOMESTIC
13 ANIMAL SPECIES.—In carrying out this para-
14 graph, the Administrator may use health mon-
15 itoring of domestic animal species that are in
16 close association with humans in the evaluation
17 of levels of exposure and risk to human health.

18 (3) AGRICULTURAL WORKERS.—

19 (A) IN GENERAL.—The Administrator
20 shall develop and carry out monitoring meth-
21 odologies to measure and assess the extent of,
22 and effects of, exposure to pesticides by agricul-
23 tural workers.

1 (B) DEVELOPMENT OF METHODOLOGIES.—In developing the methodologies, the
2 Administrator shall—
3

4 (i) specify appropriate protocols for
5 the effective implementation of the meth-
6 odologies; and

7 (ii) give priority to chemicals, that, in
8 the judgment of the Administrator, are
9 considered to be associated with a high
10 level of risk to human health.

11 (4) LAWN AND GARDEN PESTICIDES.—

12 (A) IN GENERAL.—

13 (i) MONITORING METHODOLOGIES.—
14 The Administrator shall develop and imple-
15 ment effective monitoring methodologies to
16 determine the level of human exposure to
17 lawn and garden pesticides. The Adminis-
18 trator shall—

19 (I) identify populations that are
20 most likely to be exposed to the pes-
21 ticides; and

22 (II) assess the extent and effect
23 of the exposure.

24 (ii) HEALTH SURVEILLANCE OF DO-
25 MESTIC ANIMALS.—Health surveillance of

1 domestic animals in close association with
2 humans may be used in the monitoring
3 methods referred to in clause (i) to assess
4 levels of human exposure to lawn and gar-
5 den pesticides.

6 (B) DETERMINATIONS BY THE ADMINIS-
7 TRATOR.—The Administrator shall determine
8 the following:

9 (i) The range of the distance over
10 which residues of the pesticides travel from
11 the site of initial application.

12 (ii) The extent to which each of the
13 pesticides is capable of penetrating homes
14 and other buildings.

15 (iii) A range with respect to the pe-
16 riod of time that each of the pesticides per-
17 sists on lawns and gardens and on other
18 recreational areas, including athletic play-
19 ing fields and golf courses (calculated for
20 variable climatic conditions and uses of the
21 pesticide).

22 (iv) Other related information con-
23 cerning potential routes of exposure that
24 the Administrator determines to be appro-
25 priate.

1 (v) The average quantity of the pes-
2 ticides used during a calendar year (cal-
3 culated on the basis of application on a
4 standardized area) on the following:

5 (I) Lawns.

6 (II) Gardens.

7 (III) Recreational and sporting
8 areas.

9 (vi) An estimate of the total quantity
10 of the pesticides used during a calendar
11 year in the United States on each of the
12 items listed in subclauses (I) through (III)
13 of clause (v).

14 (vii) An estimate of the percentage of
15 the quantity described in clause (vi) that
16 is—

17 (I) used for preventive purposes,
18 in the absence of evidence of pest in-
19 festation;

20 (II) used unnecessarily;

21 (III) misused; and

22 (IV) likely to increase the resist-
23 ance to the pesticide of the targeted
24 pests.

1 (5) REPORT.—Not later than 2 years after the
2 date of enactment of this Act, the Administrator
3 shall submit to the appropriate committees of Con-
4 gress a copy of a written report that summarizes the
5 progress of the projects conducted under this sub-
6 section.

7 (c) PESTICIDE RESIDUE DEMONSTRATION
8 PROJECT.—The Administrator shall conduct research to
9 develop and implement cost-effective methodologies for
10 measuring and assessing pesticide residues in food. In car-
11 rying out the research under this subsection, the Adminis-
12 trator shall assess the feasibility of establishing a program
13 in the Agency for the routine monitoring of pesticide resi-
14 dues in food that is ready for marketing.

15 (d) PESTICIDE DISTRIBUTION STUDY.—

16 (1) IN GENERAL.—The Administrator shall de-
17 termine the extent and effects of pesticide contami-
18 nation in air, ground water, and surface water. In
19 carrying out the research project, the Administrator
20 shall, with respect to each pesticide studied—

21 (A) determine the range of the distance
22 over which residues of the pesticide travel from
23 a site of initial application (calculated for vari-
24 able climatic conditions);

1 (B) if used in agriculture, with respect to
2 specific uses and methods of application of the
3 pesticide, the quantity (expressed as a percent-
4 age) of pesticide that does not remain on the
5 crop;

6 (C) the rate of fall out (as defined by the
7 Administrator) with respect to a specific type of
8 application of the pesticide;

9 (D) the rate of absorption and adsorption
10 of the pesticide (if any) into soil; and

11 (E) the quantity of the pesticide that
12 causes a threshold level of ground water or sur-
13 face water contamination (as determined by the
14 Administrator).

15 (2) REPORT.—Not later than 3 years after the
16 date of enactment of this Act, the Administrator
17 shall submit to the appropriate committees of Con-
18 gress a written report that summarizes the progress
19 of the research conducted under this subsection and
20 subsection (c).

21 (e) HEALTH RISK ASSESSMENT.—

22 (1) IN GENERAL.—

23 (A) EXPOSURE TO PESTICIDES.—The Ad-
24 ministrator shall study the acute and chronic

1 health effects of exposure to pesticides (includ-
2 ing any effects on development).

3 (B) EXPOSURE TO CHOLINESTERASE IN-
4 HIBITORS.—The Administrator shall study the
5 acute and chronic health effects resulting from
6 exposure to cholinesterase inhibitors, includ-
7 ing—

8 (i) the neurotoxic effects of the inhibi-
9 tors; and

10 (ii) other toxic effects of the inhibi-
11 tors, including any adverse effects on de-
12 velopment and reproduction, and any other
13 adverse systemic effects.

14 (C) HEALTH EFFECTS ON AGRICULTURAL
15 WORKERS.—The Administrator shall develop
16 and implement methodologies for measuring
17 and assessing the potential health effects on ag-
18 ricultural workers and consumers of agricul-
19 tural products from exposure to chemical pes-
20 ticides (as defined in section 201(q) of the Fed-
21 eral Food, Drug, and Cosmetic Act (21 U.S.C.
22 321(q)).

23 (D) HEALTH EFFECTS ON DOMESTIC ANI-
24 MAL SPECIES.—The Administrator may include
25 the study of acute and chronic health effects in

1 domestic animals species due to pesticide expo-
2 sure as part of an assessment of human expo-
3 sure levels.

4 (2) STUDY PRIORITY.—In carrying out this
5 subsection, the Administrator shall initially study
6 any pesticide (or active ingredient) described in this
7 subsection with a chemical classification or use that
8 is considered to pose a high level of risk to human
9 health.

10 (f) EFFECTS OF LONG-TERM PESTICIDE USE.—

11 (1) IN GENERAL.—

12 (A) FIELD STUDIES.—The Administrator
13 shall conduct field studies to assess the effects
14 of exposure to pesticides introduced in the envi-
15 ronment through long-term use. The Adminis-
16 trator shall study and assess the effects of pes-
17 ticide exposure on organisms other than hu-
18 mans and organisms that are not target orga-
19 nisms (with respect to the intended uses of the
20 pesticides) in the following types of ecosystems:

21 (i) Terrestrial ecosystems.

22 (ii) Marine and estuarine ecosystems.

23 (iii) Freshwater ecosystems.

24 (iv) Urban ecosystems.

1 (B) INITIAL STUDY.—In carrying out this
2 paragraph, the Administrator shall initially
3 study routes of exposure related to any pes-
4 ticide with a chemical classification or use that
5 is considered to pose a high level of risk to the
6 organisms described in this subsection.

7 (2) BIOLOGICAL PESTICIDES.—The Adminis-
8 trator shall assess and monitor the impact of biologi-
9 cal pesticides (as defined by the Administrator) on
10 the environment.

11 (3) AIR QUALITY.—The Administrator shall as-
12 sess and monitor the impact of pesticides on air
13 quality.

14 (4) REPORT.—Not later than 2 years after the
15 date of enactment of this Act, the Administrator
16 shall submit to the appropriate committees of Con-
17 gress a written report that summarizes the progress
18 of the research conducted under this subsection and
19 subsection (e).

20 **SEC. 9. NATIONAL ARID CLIMATE GROUND WATER RE-**
21 **SEARCH CENTER.**

22 (a) SHORT TITLE.—This section may be cited as the
23 “National Arid Climate Ground Water Research Center
24 Act.”.

25 (b) DEFINITIONS.—As used in this section:

1 (1) BOARD.—The term “Board” means the
2 Board of Directors established under subsection (f).

3 (2) CENTER.—The term “Center” means the
4 National Arid Climate Ground Water Research Cen-
5 ter established under subsection (e).

6 (c) FINDINGS.—Congress finds that—

7 (1) growing demands for ground water in arid
8 regions require further research to protect and mon-
9 itor aquifers in existence as of the date of enactment
10 of this Act and to locate future aquifers;

11 (2) the protection of ground water from con-
12 tamination requires further research in monitoring
13 and regulating the movement of potential contami-
14 nants;

15 (3) a variety of Federal, State, and private enti-
16 ties are conducting research concerning ground
17 water at various research centers throughout the
18 United States;

19 (4) Nevada is the most arid State in the United
20 States and, along with other western States, has ex-
21 perience 5 years of drought;

22 (5) Nevada is the fastest growing State in the
23 United States, according to the census conducted by
24 the Bureau of the Census in 1990;

1 (6) extensive ground water research capabilities
2 exist within Nevada; and

3 (7) the utilization and enhancement of ground
4 water research at institutions of higher education
5 can be—

6 (A) economical and lead to high-quality re-
7 search; and

8 (B) further the training of additional sci-
9 entists and professionals to address critical
10 ground water issues.

11 (d) PURPOSE.—The purposes of this section are to—

12 (1) establish a National Arid Climate Ground
13 Water Research Center within the State of Nevada
14 to promote and coordinate research concerning the
15 availability, usage, management, and monitoring of
16 ground water;

17 (2) increase research in monitoring and regulat-
18 ing the movement and concentration of contami-
19 nants in ground water; and

20 (3) coordinate the ground water research of the
21 Center with the research of other Federal agencies,
22 departments and agencies of States, and private
23 agencies, institutions, and entities.

24 (e) ESTABLISHMENT OF CENTER.—

1 (1) IN GENERAL.—Not later than 60 days after
2 the date of enactment of this Act, the Administrator,
3 in consultation with the Governor of the State of
4 Nevada, is authorized to take such action as may be
5 necessary to establish, in the State of Nevada, the
6 National Arid Climate Ground Water Research Cen-
7 ter.

8 (2) ROLE OF BOARD.—The Board shall advise
9 the Administrator concerning the operation of the
10 Center.

11 (3) LOCATION OF CENTER.—The Center shall
12 be located at one or more locations within the State
13 of Nevada that the Administrator, after consultation
14 with the Governor and the Board, shall designate.

15 (4) ASSISTANCE FROM ADMINISTRATOR OF
16 GENERAL SERVICES.—The Administrator of General
17 Services is authorized, subject to the availability of
18 funds, to assist the Administrator in providing nec-
19 essary facilities for the purposes of this section. In
20 providing the facilities, the Administrator of General
21 Services shall consult with the Governor of the State
22 of Nevada and the Board.

23 (5) AGREEMENTS.—The Administrator is au-
24 thorized to enter into such agreements or other ar-
25 rangements with appropriate officials of the State of

1 Nevada and other public and private agencies, insti-
2 tutions, or entities, as may be necessary to enable
3 the Administrator to carry out this section.

4 (f) BOARD OF DIRECTORS.—

5 (1) ESTABLISHMENT.—As soon as practicable
6 after the establishment of the Center, the Adminis-
7 trator shall establish a National Arid Climate
8 Ground Water Research Center Board of Directors.

9 (2) MEMBERSHIP.—The Board shall be com-
10 posed of 8 members who shall be appointed by the
11 Administrator. In selecting the members, the Admin-
12 istrator shall select—

13 (A) 1 member nominated by the Governor
14 of the State of Nevada;

15 (B) 1 member nominated by the Director
16 of the United States Geological Survey;

17 (C) 1 member nominated by the Director
18 of the Bureau of Reclamation;

19 (D) 1 member nominated by the head of
20 the University of Nevada-Las Vegas;

21 (E) 1 member nominated by the head of
22 the University of Nevada-Reno;

23 (F) 1 member nominated by the Secretary
24 of Energy;

1 (G) 1 member nominated by the head of
2 Desert Research Institute; and

3 (H) an additional member selected by the
4 Administrator.

5 (3) CHAIRPERSON.—The member nominated by
6 the Governor of the State of Nevada shall be Chair-
7 person of the Board.

8 (4) TERM.—Each member of the Board shall
9 be appointed for a term of 4 years.

10 (5) QUORUM.—Four members of the Board
11 shall constitute a quorum, but a lesser number may
12 conduct meetings.

13 (6) FIRST MEETING.—The first meeting of the
14 Board shall be called by the Administrator and shall
15 be held not later than 60 days after the date of the
16 establishment of the Board.

17 (7) VACANCIES.—A vacancy on the Board re-
18 sulting from death or resignation by a member
19 shall—

20 (A) not affect the powers of the Board;
21 and

22 (B) be filled in the same manner in which
23 the original appointment was made.

24 (g) FUNCTIONS OF THE CENTER.—The functions of
25 the Center shall be to—

1 (1) study and evaluate the availability, usage,
2 and management of ground water in arid regions;

3 (2) study and evaluate means of monitoring
4 and regulating the movement and concentration of
5 contaminants in ground water;

6 (3) coordinate ground water research in the
7 manner specified in subsection (d)(3);

8 (4) encourage graduate and undergraduate edu-
9 cation in hydrology and other professions and dis-
10 ciplines related to ground water;

11 (5)(A) provide a forum for consideration of is-
12 sues involving the use and management of ground
13 water and the protection of ground water from po-
14 tential contaminants; and

15 (B) as appropriate, utilize citizens and special
16 advisory councils;

17 (6) make the work of the Center accessible to
18 the public by holding public meetings, disseminating
19 research results and other relevant information, es-
20 tablishing technology transfer programs, and other
21 appropriate means; and

22 (7) fund ground water research projects con-
23 ducted in arid lands.

24 (h) COMPENSATION.—

1 (1) IN GENERAL.—Each member of the Board
2 who is not otherwise employed by the Federal Gov-
3 ernment shall receive compensation at a rate equal
4 to the daily rate prescribed for GS-15 under the
5 General Schedule contained in section 5332 of title
6 5, United States Code, including travel time, for
7 each day the member is engaged in the actual per-
8 formance of duties as a member of the Board.

9 (2) OFFICERS AND EMPLOYEES OF THE FED-
10 ERAL GOVERNMENT.—A member of the Board who
11 is an officer or employee of the Federal Government
12 shall serve without additional compensation as a re-
13 sult of performance of duties as a member of the
14 Board. Each member of the Board shall be reim-
15 bursed for travel, subsistence, and other necessary
16 expenses incurred by the member in the performance
17 of duties as a member.

18 (i) POWERS AND ADMINISTRATIVE PROVISIONS.—

19 (1) SERVICES OF EXPERTS.—The Chairperson
20 of the Board, with the approval of the Board, is au-
21 thorized to obtain the services of experts and con-
22 sultants in accordance with section 3109 of title 5,
23 United States Code.

24 (2) ADMINISTRATIVE SERVICES.—The Chair-
25 person of the Board, with the approval of the Board,

1 is authorized to enter into agreements with the Ad-
2 ministrator of General Services for the procurement
3 of necessary financial and administrative services,
4 for which payment shall be made by reimbursement
5 from funds of the Board in such amounts as may be
6 agreed upon by the Chairperson and the Adminis-
7 trator of General Services.

8 (3) PROCUREMENT; SERVICES.—To carry out
9 the duties of the Board, the Chairperson of the
10 Board, with the approval of the Board, is authorized
11 to procure supplies, services, and property, and
12 make contracts for any fiscal year, only to the extent
13 that funds are made available by appropriations to
14 carry out this paragraph.

15 (4) CONTRACTS AND AGREEMENTS.—To the ex-
16 tent allowable by law, the Chairperson of the Board,
17 with the approval of the Board, is authorized to
18 enter into contracts or agreements with appropriate
19 officials of Federal agencies, departments, and agen-
20 cies of States, private firms, institutions, and agen-
21 cies for the conduct of research or surveys, the prep-
22 aration of reports, and other activities necessary for
23 the discharge of the duties of the Board.

24 (5) HEARINGS.—The Board, or (on the author-
25 ization of the Board) a member of the Board, may,

1 for the purpose of carrying out this section, hold
2 such hearings, and sit and act at such times and
3 places, as the Board or the member considers advis-
4 able.

5 (6) PRINTING AND BINDING.—The Chairperson
6 of the Board, with the approval of the Board, or (on
7 the authorization of the Board) any member of the
8 Board, may, for the purpose of carrying out this sec-
9 tion, enter into contracts and other arrangements,
10 and make expenditures that the Chairperson or
11 member of the Board considers appropriate, to the
12 extent that funds are made available by appropria-
13 tions to carry out the action.

14 (7) ACQUISITION OF INFORMATION.—The
15 Board may acquire directly from any executive de-
16 partment, bureau, agency, board, commission, office,
17 independent establishment, or instrumentality infor-
18 mation, estimates, and statistics for the purpose of
19 carrying out this section. Each such department, bu-
20 reau, agency, board, commission, office, establish-
21 ment, or instrumentality is authorized and directed
22 to furnish, to the extent permitted by law, the infor-
23 mation, estimates, and statistics directly to the
24 Board, upon request by the Chairperson.

25 (8) ADMINISTRATIVE AUTHORITY.—

1 (A) IN GENERAL.—The Chairperson of the
2 Board is authorized, without regard to the pro-
3 visions of title 5, United States Code, governing
4 appointments in the competitive service, and re-
5 gard to the provisions of chapter 51 and sub-
6 chapter III of chapter 53 of such title, relating
7 to classification and General Schedule pay
8 rates, appoint, terminate, and fix the compensa-
9 tion of an Executive Director and such addi-
10 tional personnel as the Chairperson determines
11 are necessary to enable the Board to carry out
12 the duties of the Board.

13 (B) COMPENSATION.—

14 (i) EXECUTIVE DIRECTOR.—The an-
15 nual rate of compensation of the Executive
16 Director may not exceed a rate equal to
17 the rate provided for level V of the Execu-
18 tive Schedule under section 5316 of such
19 title.

20 (ii) OTHER PERSONNEL.—The annual
21 rate of compensation of all other personnel
22 may not exceed a rate equal to the maxi-
23 mum rate for GS-15 of the General Sched-
24 ule established under section 5332 of such
25 title.

1 (9) FACILITIES AND SERVICES.—On request of
2 the Board, the head of any Federal agency is au-
3 thorized to make any of the facilities and services of
4 the agency available to the Board or to detail any
5 of the personnel of the agency to the Board, on a
6 reimbursable basis, to assist the Board in carrying
7 out the duties of the Board under this section.

8 (10) MAIL.—The Board may use the United
9 States mails in the same manner and under the
10 same conditions as other departments and agencies
11 of the United States.

12 (11) PRINTING AND BINDING.—The Board may
13 expend funds for printing and binding to carry out
14 this section, notwithstanding any other provision of
15 law, to the extent that funds are made available by
16 appropriations.

17 (12) DONATIONS.—The Board may accept a
18 donation of non-Federal funds or in-kind services for
19 use in assisting the Administrator in carrying out
20 the functions of the Center referred to in subsection
21 (g).

22 (j) REPORTS.—Not later than 1 year after the date
23 of enactment of this Act, and thereafter on the request
24 of Congress, the Board shall prepare and transmit to the
25 Administrator, who shall transmit to Congress, the Presi-

1 dent, and the Governor of the State of Nevada, a report
2 that describes the activities of the Center, and the findings
3 and recommendations of the Board, together with any rec-
4 ommendations of the Administrator and the Board con-
5 cerning specific actions necessary to be taken to enable
6 the Center to carry out the functions of the Center re-
7 ferred to in subsection (g).

8 (k) AUTHORIZATION.—For each of fiscal years 1994
9 through 1996, from the sums authorized to be appro-
10 priated under section 3(a)(7), a total amount not to exceed
11 \$1,000,000 may be used by the Administrator and the
12 Board to carry out the functions of the Center.

13 **SEC. 10. ENVIRONMENTAL MONITORING AND ASSESSMENT**
14 **PROGRAM.**

15 (a) PROGRAM DEFINED.—As used in this section, the
16 term “Program” means the Environmental Monitoring
17 and Assessment Program established under subsection
18 (b).

19 (b) ESTABLISHMENT.—The Administrator shall es-
20 tablish an Environmental Monitoring and Assessment
21 Program to conduct comprehensive, long-term environ-
22 mental monitoring, data collection, and data analysis as
23 a means of assessing and responding to the then current
24 and long-term status and trends of the ecological re-
25 sources of the United States.

1 (c) COORDINATION.—The Administrator shall consult
2 with the heads of other Federal agencies to coordinate the
3 Program activities with related activities of programs of
4 the Federal agencies in order to identify, integrate, and
5 fully utilize results of related efforts undertaken by other
6 agencies and minimize duplication of efforts.

7 (d) ANNUAL REPORT.—The Administrator shall pub-
8 lish an annual report that identifies and assesses—

9 (1) the performance of the activities carried out
10 under the Program;

11 (2) the effectiveness of interagency coordination
12 with respect to Program activities; and

13 (3) the contributions of multiagency research to
14 the advancement of research goals of the Program.

15 (e) PUBLIC DATA.—The Administrator shall periodi-
16 cally submit to Congress, and make publicly available, a
17 compilation of any statistical data summaries and inter-
18 pretive reports on ecological status and trends developed
19 as a result of the Program.

20 **SEC. 11. MODERNIZATION PROGRAM.**

21 (a) DEFINITIONS.—As used in this section:

22 (1) PROGRAM.—The term “Program” means
23 the Modernization Program established under this
24 section.

1 (2) SCIENTIFIC COMMUNITY.—The term “sci-
2 entific community” shall have the meaning given the
3 term by the Administrator.

4 (b) MODERNIZATION PROGRAM.—The Administrator
5 shall establish a Modernization Program designed to iden-
6 tify, acquire, and maintain modern buildings, facilities,
7 supplies, and equipment needed to conduct high quality
8 research. In carrying out the Program, the Administrator
9 shall ensure that the buildings, facilities, supplies, and
10 equipment referred to in the preceding sentence shall, at
11 a minimum, meet the standards generally accepted by the
12 scientific community as appropriate for conducting re-
13 search, including replacement standards for instrumenta-
14 tion for research.

15 (c) STUDIES.—In carrying out the Program, the Ad-
16 ministrator shall conduct studies to—

17 (1)(A) evaluate and determine the adequacy of
18 then current buildings, facilities, supplies, and equip-
19 ment; and

20 (B) identify then future building, facility, sup-
21 plies, equipment and research instrumentation
22 needs; and

23 (2)(A) identify and assess then future research
24 personnel needs; and

1 (B) make recommendations for attracting and
2 retaining qualified scientists, engineers, and other
3 personnel to meet the needs referred to in subpara-
4 graph (A).

5 (d) DEADLINE FOR SUBMISSION.—Not later than 1
6 year after the date of enactment of this Act, the Adminis-
7 trator shall submit a copy of the findings of the studies
8 required by this section to the Committee on Environment
9 and Public Works of the Senate and the Committee on
10 Science, Space, and Technology of the House of Rep-
11 resentatives.

12 **SEC. 12. REPEAL OF 5-YEAR RESEARCH REPORT REQUIRE-**
13 **MENT.**

14 (a) IN GENERAL.—Section 5 of the Environmental
15 Research, Development, and Demonstration Authorization
16 Act of 1976 (42 U.S.C. 4361) is repealed.

17 (b) CONFORMING AMENDMENTS.—(1) Section 4 of
18 the Environmental Research, Development, and Dem-
19 onstration Authorization Act of 1978 (42 U.S.C. 4361a)
20 is repealed.

21 (2) Section 7(a) of such Act (42 U.S.C. 4364(a)) is
22 amended by striking “, including those defined in the five-
23 year research plan”.

24 (3) Section 8 of such Act (42 U.S.C. 4365) is amend-
25 ed by striking subsection (c).

1 (4) Section 9(a) of such Act (42 U.S.C. 4366(a)) is
2 amended by striking the second sentence.

3 **SEC. 13. SCIENCE ADVISORY BOARD.**

4 (a) ANNUAL REPORT.—

5 (1) IN GENERAL.—The Science Advisory Board
6 shall submit to Congress and to the Administrator
7 an annual report that contains the views of the
8 Science Advisory Board concerning proposed re-
9 search programs as described in the annual budget
10 submitted by the President to Congress pursuant to
11 section 1108 of title 31, United States Code. The re-
12 port shall be submitted to Congress as soon as prac-
13 ticable after the submission of the annual budget of
14 the President to Congress.

15 (2) COOPERATION WITH SCIENCE ADVISORY
16 BOARD.—To assist the Science Advisory Board in
17 carrying out the duties of the Board under this sec-
18 tion, the Administrator shall cooperate with the Di-
19 rector of the Science Advisory Board, with respect to
20 the timely provision of budget information to the
21 Science Advisory Board.

22 (b) EVALUATION.—

23 (1) IN GENERAL.—The Science Advisory Board
24 shall conduct periodic evaluations of selected areas
25 of the then current and planned research, develop-

1 ment, and demonstration activities of the Agency.
2 The areas of evaluation shall be selected by the
3 Science Advisory Board in consultation with the Ad-
4 ministrator, the Deputy Assistant Administrator for
5 Research and Development of the Agency, the heads
6 of other programs of the Agency, the Committee on
7 Environment and Public Works of the Senate, and
8 the Committee on Science, Space, and Technology of
9 the House of Representatives.

10 (2) REPORTS.—The Science Advisory Board
11 shall transmit to the Administrator and the commit-
12 tees referred to in paragraph (1) a report that in-
13 cludes the evaluations of the Board conducted pur-
14 suant to this section and recommendations that the
15 Board considers appropriate.

16 (3) RESPONSE BY ADMINISTRATOR.—Not later
17 than 60 days after the Science Advisory Board sub-
18 mits a report to the Administrator pursuant to para-
19 graph (2), the Administrator shall provide to the
20 committees referred to in such paragraph a written
21 response to the evaluation and recommendations of
22 the Science Advisory Board.

23 (c) REVIEW OF CERTAIN RESEARCH ACTIVITIES.—
24 Not later than 1 year after the date of enactment of this
25 Act, and annually thereafter, the Science Advisory Board

1 shall review the research activities of the Agency con-
2 ducted under section 19(b)(2) and shall include the results
3 of the review in the annual report required under sub-
4 section (a).

5 (d) CONCURRENT SUBMISSION TO CONGRESS.—The
6 Science Advisory Board shall concurrently submit to the
7 Administrator each report required to be submitted by the
8 Board to the Administrator to the Committee on Environ-
9 ment and Public Works of the Senate and the Committee
10 on Science, Space, and Technology of the House of Rep-
11 resentatives.

12 **SEC. 14. MISCELLANEOUS AUTHORIZATION FOR COOPERA-**
13 **TIVE AGREEMENTS.**

14 (a) IN GENERAL.—The Administrator may enter into
15 a cooperative agreement with an appropriate person or en-
16 tity to conduct appropriate scientific and professional re-
17 views of applications or proposals submitted to the Admin-
18 istrator for a grant, contract, or cooperative agreement.

19 (b) PAYMENT.—The Administrator may use funds
20 made available for research pursuant to this Act to pay
21 for the reviews conducted pursuant to a cooperative agree-
22 ment referred to in subsection (a).

23 **SEC. 15. RESEARCH ACCOMPLISHMENTS REPORT.**

24 The Administrator shall submit an annual report to
25 the Committee on Environment and Public Works of the

1 Senate and the Committee on Science, Space, and Tech-
2 nology of the House of Representatives that describes the
3 accomplishments of the research, development, and dem-
4 onstration programs with respect to funds that are made
5 available pursuant to this Act and the significance of the
6 accomplishments to the mission of the Agency.

7 **SEC. 16. TECHNOLOGY TRANSFER AND INFORMATION**
8 **EXCHANGE.**

9 The Administrator shall carry out a program of envi-
10 ronmental technology transfer and exchange of scientific
11 and technical information designed to make full and effec-
12 tive use of the research, development, and demonstration
13 efforts of the Agency. The Administrator may establish,
14 acquire, and maintain resources necessary to advance the
15 technology transfer and information exchange program.

16 **SEC. 17. RESEARCH TO SUPPORT THE EVALUATION OF**
17 **HEALTH AND ECOLOGICAL RISK.**

18 (a) ESTABLISHMENT.—The Administrator shall es-
19 tablish a separately identified research program designed
20 to improve the capability of the Agency to identify, assess,
21 and compare risks to public health and natural ecosystems
22 resulting from contamination of the environment.

23 (b) OBJECTIVES.—In carrying out the program es-
24 tablished under subsection (a), the Administrator may
25 conduct research to—

1 (1) develop and improve methodologies for the
2 comparison of risks to public health and natural
3 ecosystems, including risks resulting from contami-
4 nation of different environmental media;

5 (2) facilitate the monitoring of pollutants and
6 contaminants discharged to the environment;

7 (3) identify and develop methodologies for as-
8 sessing and reducing risks to natural ecosystems;

9 (4) develop and improve methodologies for the
10 assessment of noncancer risks to public health and
11 the integrated assessment of cancer and noncancer
12 health risks;

13 (5) support any other activities of the Agency
14 relating to the identification, assessment, or com-
15 parison of risks to public health and natural
16 ecosystems resulting from contamination of the envi-
17 ronment; and

18 (6) develop improved methodologies for evaluat-
19 ing (both quantitatively and qualitatively) the bene-
20 fits, of ecological protection activities, including im-
21 proved methods to value natural resources and to ac-
22 count for long-term environmental effects in the eco-
23 nomic analysis of the Agency.

1 **SEC. 18. LEAD RESEARCH PROGRAM.**

2 (a) ESTABLISHMENT OF PROGRAM.—The Adminis-
3 trator shall establish a program to conduct research, in-
4 cluding laboratory research in a controlled setting, on lead.
5 The research shall include the following:

6 (1) Research concerning state-of-the-art tech-
7 nologies for detecting lead in paint films and dust.

8 (2) Research concerning short-term and long-
9 term cost-effective technologies for the removal of
10 lead-based paint and in-place management tech-
11 niques. The research required under this paragraph
12 shall address the relative risk of, and the environ-
13 mental protection afforded by, various options to re-
14 move or ameliorate the toxic effects of lead-based
15 paint.

16 (3) A long-term research study concerning envi-
17 ronmentally compatible methods for the permanent
18 disposal, recycling, or recovery of lead in lead con-
19 tamination.

20 (4) A long-term research study to improve tech-
21 niques to measure lead levels, including levels of lead
22 in soil and dust. The study shall examine then cur-
23 rent and proposed methods and technologies to
24 measure lead exposure hazards.

25 (5) A long-term research study to examine the
26 results of lead abatement activities. The study shall

1 evaluate the effectiveness of the activities and shall
2 include the long-term monitoring of post-abatement
3 lead exposure of children and adults.

4 (b) CONSULTATION WITH THE HEADS OF OTHER
5 FEDERAL AGENCIES.—The Administrator shall consult
6 with the heads of other appropriate Federal agencies with
7 respect to the conduct of the research referred to in sub-
8 section (a).

9 (c) AUTHORIZATION OF APPROPRIATIONS.—For each
10 of fiscal years 1994 through 1996 from the amounts au-
11 thorized to be appropriated under section 3(a), the Admin-
12 istrator may use an amount not to exceed \$2,400,000 to
13 carry out this section.

14 **SEC. 19. RISK ASSESSMENT RESEARCH PRIORITIES.**

15 (a) IDENTIFICATION OF PRIORITY RISK ASSESSMENT
16 RESEARCH ISSUES.—

17 (1) REPORT.—Not later than 180 days after
18 the date of enactment of this Act, the Administrator
19 shall submit to Congress a report that identifies at
20 least 10 environmental research issues—

21 (A) correlating to the environmental haz-
22 ards that the Administrator estimates to
23 present the greatest degree of risk;

24 (B) with respect to which the Adminis-
25 trator determines there are significant scientific

1 uncertainties concerning the assessment of the
2 environmental risks; and

3 (C) with respect to which the uncertainties
4 could be significantly reduced through research.

5 (2) CONTENTS OF REPORT.—In addition to the
6 identification of the issues required under paragraph
7 (1), the report required under paragraph (1) shall
8 include—

9 (A) an assessment of any research that has
10 been, or is being, conducted by the Adminis-
11 trator with respect to each research issue iden-
12 tified under such paragraph;

13 (B) with respect to each of the research is-
14 sues referred to in subparagraph (A), an identi-
15 fication of the significant scientific uncertainties
16 associated with the assessment of the environ-
17 mental risks posed by the issue;

18 (C) an identification of the research that
19 needs to be conducted by the Administrator to
20 reduce significantly the scientific uncertainties
21 referred to in subparagraph (B); and

22 (D) a list that identifies the issues referred
23 to in subparagraph (C) in order of the priority
24 in which the research should be conducted.

25 (b) RESEARCH PROGRAM.—

1 (1) IN GENERAL.—The Administrator shall
2 carry out a research program to reduce the scientific
3 uncertainties with respect to the assessment of the
4 environmental risks posed by the issues identified
5 under subsection (a). The research shall be con-
6 ducted in accordance with the priority list referred
7 to in subsection (a)(2)(D).

8 (2) ECONOMIC IMPACT ASSESSMENT.—As part
9 of the research program conducted under paragraph
10 (1), the Administrator shall conduct research to im-
11 prove the methodologies used to assess the economic
12 impact of technologies developed as a result of the
13 research program.

14 (c) BUDGET COORDINATION.—In the first budget
15 submitted by the President to Congress pursuant to sec-
16 tion 1108 of title 31, United States Code, following the
17 submission required by subsection (a), and in the 4 suc-
18 ceeding budgets submitted by the President pursuant to
19 such section, the Administrator shall include a report that
20 identifies the research conducted by the Administrator in
21 accordance with the priority list referred to in subsection
22 (a)(2)(D).

1 **SEC. 20. REPORT ON OPPORTUNITIES FOR DEFENSE TECH-**
2 **NOLOGY TRANSFER IN DEVELOPMENT OF EN-**
3 **VIRONMENTALLY SENSITIVE PRODUCTS.**

4 (a) DEFINITION.—As used in this section, the term
5 “defense-related research for environmental applications”
6 means research funded by the Secretary of Defense to
7 mitigate the environmental impact of activities carried out
8 for military purposes.

9 (b) REPORT.—

10 (1) IN GENERAL.—Not later than 180 days
11 after the date of enactment of this Act, the Adminis-
12 trator shall submit to Congress a report that identi-
13 fies opportunities for the technology transfer of de-
14 fense-related research for environmental applica-
15 tions.

16 (2) CONTENTS OF REPORT.—The report shall
17 include information on the development of environ-
18 mentally sensitive products and processes that have
19 dual-use or commercial application, such as—

20 (A) the reduced use of toxic, hazardous,
21 and environmentally damaging substances;

22 (B) the development and employment of
23 substitutes for the substances; and

24 (C) the reduction of emissions and waste
25 generation in product design, manufacture, and
26 maintenance in relevant areas of technology.

1 (c) CONSULTATION.—In preparing the report pursu-
2 ant to subsection (b), the Administrator shall consult with
3 the heads of appropriate Federal agencies to identify pro-
4 duction and design capabilities that are applicable to the
5 development of products and processes described in sub-
6 section (b).

7 **SEC. 21. FINANCIAL ASSISTANCE FOR RESEARCH ON**
8 **DRINKING WATER DISINFECTION.**

9 (a) IN GENERAL.—

10 (1) DISINFECTION AND DISINFECTION BYPROD-
11 UCTS RESEARCH.—The Administrator shall conduct
12 research on disinfection and disinfection byproducts
13 as part of the negotiated rulemaking procedures for
14 National Primary Drinking Water Regulations for
15 phase VIA contaminants (disinfection byproducts)
16 issued pursuant to title XIV of the Public Health
17 Service Act (commonly known as the “Safe Drinking
18 Water Act”) (42 U.S.C. 300f et seq.).

19 (2) AUTHORIZATION OF APPROPRIATIONS.—
20 There are authorized to be appropriated to the
21 Agency, to carry out this subsection, \$4,000,000 for
22 each of fiscal years 1994 through 1998.

23 (b) COOPERATIVE AGREEMENT.—

24 (1) IN GENERAL.—The Administrator shall
25 offer to enter into an agreement with the appro-

1 appropriate official of the American Water Works Associa-
2 tion Research Foundation (or if the Foundation does
3 not enter into the agreement, an appropriate equiva-
4 lent entity) to conduct disinfection and disinfection
5 byproducts research for each of fiscal years 1994
6 through 1998.

7 (2) FUNDING.—

8 (A) IN GENERAL.—For each fiscal year,
9 the Administrator shall make available pursu-
10 ant to an agreement entered into under para-
11 graph (1), from amounts made available to the
12 Administrator pursuant to this section,
13 \$2,000,000.

14 (B) MATCHING REQUIREMENT.—As a con-
15 dition of the agreement, the Foundation (or
16 other appropriate entity) shall be required to
17 provide a non-Federal share in an amount that
18 is not less than the amount made available pur-
19 suant to this section.

20 (c) REPORTS.—

21 (1) REPORT TO THE ADMINISTRATOR.—Not
22 later than 1 year after the date the Administrator
23 enters into an agreement with a private entity under
24 subsection (a), the private entity shall submit to the

1 Administrator the study prepared pursuant to such
2 subsection.

3 (2) REPORT TO CONGRESS.—Not later than 2
4 weeks after the Administrator receives the study re-
5 quired to be submitted under paragraph (1), the Ad-
6 ministrator shall submit the study to Congress, to-
7 gether with any comments of the Administrator with
8 respect to the report.

9 (d) FUNDING.—Of amounts authorized to be appro-
10 priated under section 2(a), the Administrator may use not
11 more than \$500,000 to carry out this section.

12 **SEC. 22. PURCHASE OF AMERICAN-MADE EQUIPMENT AND**
13 **PRODUCTS.**

14 (a) SENSE OF CONGRESS.—It is the sense of Con-
15 gress that any recipient of a grant under this Act or any
16 amendment made by this Act, should, when available and
17 cost-effective, purchase equipment and products manufac-
18 tured in the United States.

19 (b) NOTICE TO RECIPIENTS OF ASSISTANCE.—In al-
20 locating grants under this Act, or under any amendment
21 made by this Act, the Administrator shall provide to each
22 grant recipient a notice describing the sense of Congress
23 under subsection (a).

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S 1545 IS—2

S 1545 IS—3

S 1545 IS—4