

107TH CONGRESS  
1ST SESSION

# H. R. 1679

To ensure that nuclear energy continues to contribute to the supply of  
electricity in the United States.

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## IN THE HOUSE OF REPRESENTATIVES

MAY 2, 2001

Mr. GRAHAM (for himself, Mr. STENHOLM, Mr. BURR of North Carolina, Mr. HASTINGS of Washington, Mr. WAMP, Mr. SIMPSON, Mr. NORWOOD, and Mrs. WILSON) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committee on Science, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To ensure that nuclear energy continues to contribute to  
the supply of electricity in the United States.

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 “Electricity Supply Assurance Act of 2001”.

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

Sec. 1. Short title; table of contents.  
Sec. 2. Findings.

Sec. 3. Definitions.

## TITLE I—SUPPORT FOR CONTINUED USE OF NUCLEAR ENERGY

### Subtitle A—Price-Anderson Amendments

- Sec. 101. Short title.
- Sec. 102. Indemnification authority.
- Sec. 103. Maximum assessment.
- Sec. 104. Department of Energy liability limit.
- Sec. 105. Incidents outside the United States.
- Sec. 106. Reports.
- Sec. 107. Inflation adjustment.
- Sec. 108. Civil penalties.
- Sec. 109. Applicability.

### Subtitle B—Leadership of the Office of Nuclear Energy, Science, and Technology and the Office of Science

- Sec. 111. Assistant Secretaries.

### Subtitle C—Funding of Certain Department of Energy Programs

- Sec. 121. Nuclear Energy Research Initiative.
- Sec. 122. Nuclear Plant Optimization Program.
- Sec. 123. Upgrading of nuclear plant operations.
- Sec. 124. University programs.
- Sec. 125. Prohibition of commercial sales of uranium and conversion held by  
the Department of Energy until 2005.
- Sec. 126. Cooperative research and development and special demonstration  
projects for the uranium mining industry.
- Sec. 127. Mixed oxide fuel program.
- Sec. 128. Maintenance of a viable domestic uranium conversion industry.
- Sec. 129. Portsmouth Gaseous Diffusion Plant.
- Sec. 130. Nuclear generation report.

## TITLE II—CONSTRUCTION OF NUCLEAR PLANTS

- Sec. 201. Research program.
- Sec. 202. Nuclear plant completion initiative.
- Sec. 203. Early site permit demonstration program.
- Sec. 204. Nuclear energy technology study for Generation IV reactors.
- Sec. 205. Research supporting regulatory processes for new reactor technologies  
and designs.

## TITLE III—EVALUATIONS OF NUCLEAR ENERGY

- Sec. 301. Environmentally preferable purchasing.
- Sec. 302. Emission-free control measures under a State implementation plan.
- Sec. 303. Prohibition of discrimination against emission-free electricity projects  
in international development programs.

## TITLE IV—DEVELOPMENT OF NATIONAL SPENT NUCLEAR FUEL STRATEGY

- Sec. 401. Finding.
- Sec. 402. Office of Spent Nuclear Fuel Research.
- Sec. 403. Advanced fuel recycling technology development program.

## TITLE V—NATIONAL ACCELERATOR SITE

- Sec. 501. Finding.
- Sec. 502. Definitions.
- Sec. 503. Advanced Accelerator Applications Program.

## TITLE VI—NUCLEAR REGULATORY COMMISSION REFORM

- Sec. 601. Definitions.
- Sec. 602. Office location.
- Sec. 603. License period.
- Sec. 604. Elimination of foreign ownership restrictions.
- Sec. 605. Elimination of duplicative antitrust review.
- Sec. 606. Gift acceptance authority.
- Sec. 607. Authority over former licensees for decommissioning funding.
- Sec. 608. Carrying of firearms by licensee employees.
- Sec. 609. Cost recovery from Government agencies.
- Sec. 610. Hearing procedures.
- Sec. 611. Unauthorized introduction of dangerous weapons.
- Sec. 612. Sabotage of nuclear facilities or fuel.
- Sec. 613. Nuclear decommissioning obligations of nonlicensees.

**1 SEC. 2. FINDINGS.**

2 Congress finds that—

3 (1) the standard of living for citizens of the  
4 United States is linked to the availability of reliable,  
5 low-cost energy supplies;

6 (2) personal use patterns, manufacturing proc-  
7 esses, and advanced cyber information all fuel in-  
8 creases in the demand for electricity;

9 (3) demand-side management, while important,  
10 is not likely to halt the increase in energy demand;

11 (4) the United States needs an energy portfolio  
12 containing nuclear generation to limit fluctuations in  
13 overall energy prices;

14 (5)(A) nuclear power is the largest producer of  
15 essentially emission-free electricity;

1           (B) nuclear energy is one of the few energy  
2 sources that controls all pollutants;

3           (C) nuclear plants are demonstrating excellent  
4 reliability as the plants produce power at low cost  
5 with a superb safety record; and

6           (D) the generation costs of nuclear power are  
7 not subject to the same price fluctuations as fossil  
8 fuels;

9           (6) requirements for new highly reliable base-  
10 load generation capacity coupled with increasing en-  
11 vironmental concerns and limited long-term avail-  
12 ability of fossil fuels require that the United States  
13 preserve the nuclear energy option into the future;

14           (7) to ensure the reliability of electricity supply  
15 and delivery, the United States needs programs to  
16 encourage the extended or more efficient operation  
17 of currently existing nuclear plants and the con-  
18 struction of new nuclear plants;

19           (8) a qualified workforce is a prerequisite to  
20 continued safe operation of—

21                   (A) nuclear plants;

22                   (B) the nuclear navy;

23                   (C) programs dealing with high-level or  
24 low-level waste from civilian or defense facili-  
25 ties; and

1 (D) research and medical uses of nuclear  
2 technologies;

3 (9) uncertainty surrounding the costs associ-  
4 ated with regulatory approval for siting, con-  
5 structing, and operating nuclear plants confuses the  
6 economics for new plant investments;

7 (10) to ensure the long-term reliability of sup-  
8 plies of nuclear fuel, the United States must ensure  
9 that the domestic uranium mining, conversion, and  
10 enrichment service industries remain viable;

11 (11)(A) technology developed in the United  
12 States and worldwide, broadly labeled as the Genera-  
13 tion IV Reactor, is demonstrating that new designs  
14 of nuclear reactors are feasible;

15 (B) plants using the new designs would have  
16 improved safety, minimized proliferation risks, re-  
17 duced spent fuel, and much lower costs; and

18 (C)(i) the nuclear facility infrastructure needed  
19 to conduct nuclear energy research and development  
20 in the United States has been allowed to erode over  
21 the past decade; and

22 (ii) that infrastructure must be restored to sup-  
23 port development of Generation IV nuclear energy  
24 systems;

1           (12)(A) to ensure the long-term viability of nu-  
2 clear power, the public must be confident that final  
3 waste forms resulting from spent fuel are controlled  
4 so as to have negligible impact on the environment;  
5 and

6           (B) continued research on repositories, and on  
7 approaches to mitigate the toxicity of materials en-  
8 tering any future repository, would serve that public  
9 interest; and

10          (13)(A) the Nuclear Regulatory Commission  
11 must continue its stewardship of the safety of our  
12 nuclear industry;

13          (B) at the same time, the Commission must  
14 streamline processes wherever possible to provide  
15 timely responses to a wide range of safety, upgrade,  
16 and licensing issues;

17          (C) the Commission should conduct research on  
18 new reactor technologies to support future regu-  
19 latory decisions; and

20          (D) a revision of certain Commission proce-  
21 dures would assist in more timely processing of li-  
22 cense applications and other requests for regulatory  
23 action.

24 **SEC. 3. DEFINITIONS.**

25 In this Act:

1           (1) COMMISSION.—The term “Commission”  
2 means the Nuclear Regulatory Commission.

3           (2) EARLY SITE PERMIT.—The term “early site  
4 permit” means a permit for a site to be a future lo-  
5 cation for a nuclear plant under subpart A of part  
6 52 of title 10, Code of Federal Regulations.

7           (3) NUCLEAR PLANT.—The term “nuclear  
8 plant” means a nuclear energy facility that gen-  
9 erates electricity.

10          (4) SECRETARY.—The term “Secretary” means  
11 the Secretary of Energy.

12 **TITLE I—SUPPORT FOR CONTIN-**  
13 **UED USE OF NUCLEAR EN-**  
14 **ERGY**

15 **Subtitle A—Price-Anderson**  
16 **Amendments**

17 **SEC. 101. SHORT TITLE.**

18          This subtitle may be cited as the “Price-Anderson  
19 Amendments Act of 2001”.

20 **SEC. 102. INDEMNIFICATION AUTHORITY.**

21          (a) INDEMNIFICATION OF NUCLEAR REGULATORY  
22 COMMISSION LICENSEES.—Section 170 c. of the Atomic  
23 Energy Act of 1954 (42 U.S.C. 2210(c)) is amended—

24           (1) in the subsection heading, by striking “LI-  
25 CENSES” and inserting “LICENSEES”; and

1           (2) by striking “August 1, 2002” each place it  
2           appears and inserting “August 1, 2012”.

3           (b) INDEMNIFICATION OF DEPARTMENT OF ENERGY  
4 CONTRACTORS.—Section 170 d.(1)(A) of the Atomic En-  
5 ergy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended  
6 by striking “, until August 1, 2002,”.

7           (c) INDEMNIFICATION OF NONPROFIT EDUCATIONAL  
8 INSTITUTIONS.—Section 170 k. of the Atomic Energy Act  
9 of 1954 (42 U.S.C. 2210(k)) is amended by striking “Au-  
10 gust 1, 2002” each place it appears and inserting “August  
11 1, 2012”.

12 **SEC. 103. MAXIMUM ASSESSMENT.**

13           Section 170 b.(1) of the Atomic Energy Act of 1954  
14 (42 U.S.C. 2210(b)(1)) is amended in the second proviso  
15 of the third sentence by striking “\$10,000,000” and in-  
16 serting “\$20,000,000”.

17 **SEC. 104. DEPARTMENT OF ENERGY LIABILITY LIMIT.**

18           (a) AGGREGATE LIABILITY LIMIT.—Section 170 d.  
19 of the Atomic Energy Act of 1954 (42 U.S.C. 2210(d))  
20 is amended by striking paragraph (2) and inserting the  
21 following:

22           “(2) LIABILITY LIMIT.—In an agreement of indem-  
23 nification entered into under paragraph (1), the  
24 Secretary—



1           “(A) may require the contractor to provide and  
2           maintain the financial protection of such a type and  
3           in such amounts as the Secretary shall determine to  
4           be appropriate to cover public liability arising out of  
5           or in connection with the contractual activity; and

6           “(B) shall indemnify the persons indemnified  
7           against such liability above the amount of the finan-  
8           cial protection required, in the amount of  
9           \$10,000,000,000 (subject to adjustment for inflation  
10          under subsection t.), in the aggregate, for all per-  
11          sons indemnified in connection with the contract and  
12          for each nuclear incident, including such legal costs  
13          of the contractor as are approved by the Secretary.”.

14          (b) CONTRACT AMENDMENTS.—Section 170 d. of the  
15          Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is  
16          amended by striking paragraph (3) and inserting the fol-  
17          lowing:

18          “(3) CONTRACT AMENDMENTS.—All agreements of  
19          indemnification under which the Department of Energy  
20          (or its predecessor agencies) may be required to indemnify  
21          any person shall be deemed to be amended, on the date  
22          of enactment of the Price-Anderson Amendments Act of  
23          2001, to reflect the amount of indemnity for public liabil-  
24          ity and any applicable financial protection required of the  
25          contractor under this subsection on that date.”.

1 **SEC. 105. INCIDENTS OUTSIDE THE UNITED STATES.**

2 (a) AMOUNT OF INDEMNIFICATION.—Section 170  
3 d.(5) of the Atomic Energy Act of 1954 (42 U.S.C.  
4 2210(d)(5)) is amended by striking “\$100,000,000” and  
5 inserting “\$500,000,000”.

6 (b) LIABILITY LIMIT.—Section 170 e.(4) of the  
7 Atomic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is  
8 amended by striking “\$100,000,000” and inserting  
9 “\$500,000,000”.

10 **SEC. 106. REPORTS.**

11 Section 170 p. of the Atomic Energy Act of 1954 (42  
12 U.S.C. 2210(p)) is amended by striking “August 1, 1998”  
13 and inserting “August 1, 2008”.

14 **SEC. 107. INFLATION ADJUSTMENT.**

15 Section 170 t. of the Atomic Energy Act of 1954 (42  
16 U.S.C. 2210(t)) is amended—

17 (1) by redesignating paragraph (2) as para-  
18 graph (3); and

19 (2) by adding after paragraph (1) the following:

20 “(2) ADJUSTMENT.—The Secretary shall adjust the  
21 amount of indemnification provided under an agreement  
22 of indemnification under subsection d. not less than once  
23 during each 5-year period following the date of enactment  
24 of the Price-Anderson Amendments Act of 2001, in ac-  
25 cordance with the aggregate percentage change in the  
26 Consumer Price Index since—

1           “(A) that date of enactment, in the case of the  
2           first adjustment under this subsection; or

3           “(B) the previous adjustment under this sub-  
4           section.”.

5 **SEC. 108. CIVIL PENALTIES.**

6           (a) **REPEAL OF AUTOMATIC REMISSION.**—Section  
7 234A b.(2) of the Atomic Energy Act of 1954 (42 U.S.C.  
8 2282a(b)(2)) is amended by striking the last sentence.

9           (b) **LIMITATION FOR NONPROFIT INSTITUTIONS.**—  
10 Section 234A of the Atomic Energy Act of 1954 (42  
11 U.S.C. 2282a) is amended by striking subsection d. and  
12 inserting the following:

13           “d. Notwithstanding subsection a., no contractor,  
14 subcontractor, or supplier of the Department of Energy  
15 that is an organization described in section 501(c)(3) of  
16 the Internal Revenue Code of 1986 that is exempt from  
17 taxation under section 501(a) of the Code shall be subject  
18 to a civil penalty under this section in any fiscal year in  
19 excess of the amount of any performance fee paid by the  
20 Secretary during that fiscal year to the contractor, sub-  
21 contractor, or supplier under the contract under which a  
22 violation occurs.”.

23 **SEC. 109. APPLICABILITY.**

24           (a) **INDEMNIFICATION PROVISIONS.**—The amend-  
25 ments made by sections 103, 104, and 105 do not apply

1 to a nuclear incident that occurs before the date of enact-  
2 ment of this Act.

3 (b) CIVIL PENALTY PROVISIONS.—The amendments  
4 made by section 108(b) do not apply to a violation that  
5 occurs under a contract entered into before the date of  
6 enactment of this Act.

7 **Subtitle B—Leadership of the Of-**  
8 ****fice of Nuclear Energy, Science****  
9 ****and Technology and the Office****  
10 ****of Science****

11 **SEC. 111. ASSISTANT SECRETARIES.**

12 (a) IN GENERAL.—Section 203(a) of the Department  
13 of Energy Organization Act (42 U.S.C. 7133(a)) is  
14 amended in the matter preceding paragraph (1) by strik-  
15 ing “six” and inserting “eight”.

16 (b) FUNCTIONS.—On appointment of the 2 additional  
17 Assistant Secretaries of Energy under the amendment  
18 made by subsection (a), the Secretary shall assign—

19 (1) to one of the Assistant Secretaries, who  
20 shall be the Assistant Secretary of Nuclear Energy,  
21 Science and Technology, the responsibility for over-  
22 seeing and administering the Office of Nuclear En-  
23 ergy, Science and Technology; and

24 (2) to the other of the Assistant Secretaries,  
25 who shall be the Assistant Secretary for Science, the

1 responsibility for overseeing and administering the  
2 Office of Science.

3 **Subtitle C—Funding of Certain**  
4 **Department of Energy Programs**

5 **SEC. 121. NUCLEAR ENERGY RESEARCH INITIATIVE.**

6 (a) AUTHORIZATION OF APPROPRIATIONS.—There  
7 are authorized to be appropriated to the Secretary for a  
8 Nuclear Energy Research Initiative to be managed by the  
9 Assistant Secretary for Nuclear Energy, Science and  
10 Technology for grants to be competitively awarded and  
11 subject to peer review for research relating to nuclear  
12 energy—

13 (1) \$60,000,000 for fiscal year 2002; and

14 (2) such sums as are necessary for fiscal years  
15 2003 through 2006.

16 (b) REPORTS.—The Secretary shall submit to the  
17 Committee on Science and the Committee on Appropria-  
18 tions of the House of Representatives, and to the Com-  
19 mittee on Energy and Natural Resources and the Com-  
20 mittee on Appropriations of the Senate an annual report  
21 on the activities of the Nuclear Energy Research Initia-  
22 tive.

23 **SEC. 122. NUCLEAR PLANT OPTIMIZATION PROGRAM.**

24 (a) AUTHORIZATION OF APPROPRIATIONS.—There  
25 are authorized to be appropriated to the Secretary for a

1 Nuclear Plant Optimization Program to be managed by  
2 the Assistant Secretary for Nuclear Energy, Science and  
3 Technology for a joint program with industry cost-shared  
4 by at least 50 percent and subject to annual review by  
5 the Secretary of Energy's Nuclear Energy Research Advi-  
6 sory Committee—

- 7           (1) \$15,000,000 for fiscal year 2002; and  
8           (2) such sums as are necessary for fiscal years  
9           2003 through 2006.

10       (b) REPORTS.—The Secretary shall submit to the  
11 Committee on Science and the Committee on Appropria-  
12 tions of the House of Representatives, and to the Com-  
13 mittee on Energy and Natural Resources and the Com-  
14 mittee on Appropriations of the Senate an annual report  
15 on the activities of the Nuclear Plant Optimization Pro-  
16 gram.

17 **SEC. 123. UPDATING OF NUCLEAR PLANT OPERATIONS.**

18       (a) PAYMENT OF COMMISSION USER FEES.—The  
19 Secretary shall reimburse all user fees incurred by a li-  
20 censee of a nuclear plant for obtaining the approval of the  
21 Commission to achieve a permanent increase in the rated  
22 electricity capacity of the licensee's nuclear plant if the  
23 licensee provides information indicating to the satisfaction  
24 of the Secretary that the licensee will achieve the increased  
25 capacity before December 31, 2004.

1 (b) PREFERENCE.—Preference shall be given by the  
2 Secretary to reimbursing projects in which a single  
3 uprating operation can benefit multiple domestic nuclear  
4 power reactors.

5 (c) INCENTIVE PAYMENTS.—

6 (1) IN GENERAL.—In addition to payments  
7 made under subsection (b), the Secretary shall offer  
8 an incentive payment equal to 10 percent of the cap-  
9 ital improvement cost resulting in a permanent in-  
10 crease of at least 5 percent in the rated electricity  
11 capacity of the licensee’s nuclear plant if the licensee  
12 provides information indicating to the satisfaction of  
13 the Secretary that the licensee will achieve the in-  
14 creased capacity rating before December 31, 2004.

15 (2) LIMITATION.—No incentive payment under  
16 paragraph (1) associated with any single nuclear  
17 plant shall exceed \$1,000,000.

18 (d) CONDITION OF PAYMENT.—Payments made  
19 under subsection (a) or (c) shall be made on the condition  
20 that they will be repaid to the Secretary if the licensee  
21 fails to achieve the appropriate increased capacity rating  
22 before December 31, 2004.

23 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
24 are authorized to be appropriated to the Secretary to carry

1 out this section \$15,000,000 for each of fiscal years 2002,  
2 2003, and 2004.

3 **SEC. 124. UNIVERSITY PROGRAMS.**

4 (a) IN GENERAL.—The Secretary may, as provided  
5 in this section, provide grants and other forms of payment  
6 to further the national goal of producing well-educated  
7 graduates in nuclear engineering and closely related spe-  
8 cialties that support nuclear energy programs such as  
9 health physics, actinide chemistry, and material sciences.

10 (b) SUPPORT FOR UNIVERSITY RESEARCH REAC-  
11 TORS.—The Secretary may provide grants and other  
12 forms of payments for plant upgrading to universities in  
13 the United States that operate and maintain nuclear re-  
14 search reactors.

15 (c) SUPPORT FOR UNIVERSITY RESEARCH AND DE-  
16 VELOPMENT.—The Secretary may provide grants and  
17 other forms of payment for research and development  
18 work by faculty, staff, and students associated with nu-  
19 clear engineering programs and closely related specialties  
20 at universities in the United States.

21 (d) SUPPORT FOR NUCLEAR ENGINEERING STU-  
22 DENTS AND FACULTY.—The Secretary may provide fel-  
23 lowships, scholarships, and other support to students and  
24 to departments of nuclear engineering and closely related  
25 specialties at universities in the United States.



1 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
2 are authorized to be appropriated to the Secretary to carry  
3 out this section—

4 (1) \$34,200,000 for fiscal year 2002, of  
5 which—

6 (A) \$13,000,000 shall be available to carry  
7 out subsection (b);

8 (B) \$10,200,000 shall be available to carry  
9 out subsection (c); and

10 (C) \$11,000,000 shall be available to carry  
11 out subsection (d); and

12 (2) such sums as are necessary for subsequent  
13 fiscal years.

14 At least 20 percent of the amounts appropriated pursuant  
15 to paragraph (1)(B), and pursuant to paragraph (1)(C),  
16 shall be available to support health physics programs.

17 **SEC. 125. PROHIBITION OF COMMERCIAL SALES OF URA-**  
18 **NIUM AND CONVERSION HELD BY THE DE-**  
19 **PARTMENT OF ENERGY UNTIL 2005.**

20 Section 3112(b) of the USEC Privatization Act (42  
21 U.S.C. 2297h–10(b)) is amended by striking paragraph  
22 (2) and inserting the following:

23 “(2) SALE OF URANIUM HEXAFLUORIDE.—

24 “(A) IN GENERAL.—The Secretary shall—

1                   “(i) sell and receive payment for the  
2                   uranium hexafluoride transferred to the  
3                   Secretary under paragraph (1); and

4                   “(ii) refrain from sales of the Depart-  
5                   ment’s surplus natural uranium and con-  
6                   version services through 2005 (except  
7                   minor quantities associated with site clean-  
8                   up projects or the Department of Energy  
9                   research reactor sales program).

10                  “(B) REQUIREMENTS.—Under subpara-  
11                  graph (A)(i), uranium hexafluoride shall be sold  
12                  in 2006 for consumption by end users in the  
13                  United States not before January 1, 2007, and  
14                  in subsequent years, in volumes not to exceed  
15                  3,000,000 pounds U<sub>3</sub>O<sub>8</sub> equivalent per year.”.

16 **SEC. 126. COOPERATIVE RESEARCH AND DEVELOPMENT**  
17                   **AND SPECIAL DEMONSTRATION PROJECTS**  
18                   **FOR THE URANIUM MINING INDUSTRY.**

19                  There are authorized to be appropriated to the Sec-  
20                  retary \$10,000,000 for each of fiscal years 2002, 2003,  
21                  and 2004 for—

22                  (1) cooperative, cost-shared, agreements be-  
23                  tween the Department of Energy and the domestic  
24                  uranium mining industry to identify, test, and de-  
25                  velop improved in-situ leaching mining technologies,

1 including low-cost environmental restoration tech-  
2 nologies that may be applied to sites after comple-  
3 tion of in-situ leaching operations; and

4 (2) funding for competitively selected dem-  
5 onstration projects with the domestic uranium min-  
6 ing industry relating to—

7 (A) enhanced production with minimal en-  
8 vironmental impact;

9 (B) restoration of well fields; and

10 (C) decommissioning and decontamination  
11 activities.

12 **SEC. 127. MIXED OXIDE FUEL PROGRAM.**

13 (a) FINDINGS.—The Congress finds that—

14 (1) the United States and Russia signed a Plu-  
15 tonium Management and Disposition agreement on  
16 September 1, 2000;

17 (2) that agreement directs that 34 metric tons  
18 of plutonium from each country's weapons stockpile  
19 be converted to a usable mixed oxide fuel to be  
20 burned in commercial reactors;

21 (3) that agreement would eliminate for the  
22 United States the long-term storage costs of pluto-  
23 nium at 5 Government sites in this country;

1 (4) those ongoing storage costs will far exceed  
2 the conversion costs if the stockpiled plutonium is  
3 left in its current state;

4 (5) it is safer and more cost-effective for the  
5 United States to convert stockpiled plutonium into  
6 mixed oxide fuel than to not do so;

7 (6) the Plutonium Management and Disposition  
8 agreement should be implemented; and

9 (7) construction of the Mixed Oxide Fuel Fab-  
10 rication Facility, as provided in the Plutonium Man-  
11 agement and Disposition agreement, will facilitate  
12 the cleanup of several Department of Energy former  
13 weapons sites, at significant cost savings to the Fed-  
14 eral Government.

15 (b) CONSTRUCTION OF FACILITY.—The Secretary of  
16 Energy shall begin the construction of the Mixed Oxide  
17 Fuel Fabrication Facility by October of 2003, as provided  
18 in the Plutonium Management and Disposition agreement  
19 entered into between the United States and Russia on  
20 September 1, 2000.

21 **SEC. 128. MAINTENANCE OF A VIABLE DOMESTIC URANIUM**  
22 **CONVERSION INDUSTRY.**

23 (a) IN GENERAL.—For Department of Energy ex-  
24 penses necessary in providing to Converdyn Incorporated  
25 a payment for losses associated with providing conversion

1 services for the production of low-enriched uranium (ex-  
2 cluding imports related to actions taken under the United  
3 States/Russia HEU Agreement), there are authorized to  
4 be appropriated \$8,000,000 for each of fiscal years 2002,  
5 2003, and 2004.

6 (b) RATE.—The payment shall be at a rate, deter-  
7 mined by the Secretary, that—

8 (1)(A) is based on the difference between  
9 Converdyn's costs and its sale price for providing  
10 conversion services for the production of low-en-  
11 riched uranium fuel; but

12 (B) does not exceed the amount appropriated  
13 under subsection (a); and

14 (2) shall be contingent on submission to the  
15 Secretary of a financial statement satisfactory to the  
16 Secretary that is certified by an independent auditor  
17 for each year.

18 (c) TIMING.—A payment under subsection (a) shall  
19 be provided as soon as practicable after receipt and  
20 verification of the financial statement submitted under  
21 subsection (b).

22 **SEC. 129. PORTSMOUTH GASEOUS DIFFUSION PLANT.**

23 (a) IN GENERAL.—The Secretary may proceed with  
24 actions required to place and maintain appropriate por-

1 tions of the Portsmouth Gaseous Diffusion Plant into cold  
2 standby condition for a period of up to 5 years.

3 (b) PLANT CONDITION.—In the cold standby condi-  
4 tion, the plant shall be in a condition that—

5 (1) would allow its restart, for production of  
6 3,000,000 separative work units per year, to meet  
7 domestic demand for enrichment services; and

8 (2) will facilitate the future decontamination  
9 and decommissioning of the plant.

10 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
11 are authorized to be appropriated to the Secretary to carry  
12 out this section—

13 (1) \$36,000,000 for fiscal year 2002; and

14 (2) such sums as are necessary for fiscal years  
15 2003, 2004, and 2005.

16 **SEC. 130. NUCLEAR GENERATION REPORT.**

17 (a) IN GENERAL.—Not later than 180 days after the  
18 date of enactment of this Act, the Commission shall sub-  
19 mit to Congress a report on the state of nuclear power  
20 generation in the United States.

21 (b) CONTENTS.—The report shall—

22 (1) provide current and historical detail  
23 regarding—

1 (A) the number of commercial nuclear  
2 plants and the amount of electricity generated;  
3 and

4 (B) the safety record of commercial nu-  
5 clear plants;

6 (2) review the status of the relicensing process  
7 for commercial nuclear plants, including—

8 (A) current and anticipated applications;  
9 and

10 (B) for each current and anticipated  
11 application—

12 (i) the anticipated length of time for  
13 a license renewal application to be pro-  
14 cessed; and

15 (ii) the current and anticipated costs  
16 of each license renewal;

17 (3) assess the capability of the Commission to  
18 evaluate licenses for new advanced reactor designs  
19 and discuss the confirmatory and anticipatory re-  
20 search activities needed to support that capability;

21 (4) detail the efforts of the Commission to pre-  
22 pare for potential new commercial nuclear plants, in-  
23 cluding evaluation of any new plant design and the  
24 licensing process for nuclear plants;

1           (5) state the anticipated length of time for a  
2           new plant license to be processed and the anticipated  
3           cost of such a process; and

4           (6) include recommendations for improvements  
5           in each of the processes reviewed.

6           **TITLE II—CONSTRUCTION OF**  
7           **NUCLEAR PLANTS**

8           **SEC. 201. RESEARCH PROGRAM.**

9           The Commission shall develop a research program to  
10          support regulatory actions relating to new nuclear plant  
11          technologies.

12          **SEC. 202. NUCLEAR PLANT COMPLETION INITIATIVE.**

13          (a) INFORMATION.—The Secretary shall solicit such  
14          information as may be useful in carrying out this section  
15          on United States nuclear plants requiring additional cap-  
16          ital investment before becoming operational or being re-  
17          turned to operation.

18          (b) IDENTIFICATION OF NUCLEAR PLANTS.—The  
19          Secretary shall convene a panel of experts to—

20                  (1) review information obtained under sub-  
21                  section (a); and

22                  (2) identify which nuclear plants should be in-  
23                  cluded in the assessment under subsection (c).

24          (c) TECHNICAL AND ECONOMIC COMPLETION AS-  
25          SESSMENT.—On completion of the identification of can-



1 didate nuclear plants under subsection (b)(2), the Sec-  
2 retary shall commence a detailed technical and economic  
3 completion assessment that includes, on a unit-specific  
4 basis, all technical and economic information necessary to  
5 permit a decision on the feasibility of completing work on  
6 and operating or returning to operation any or all of the  
7 nuclear plants identified under subsection (b)(2) by De-  
8 cember 31, 2004.

9 (d) SOLICITATION OF PROPOSALS.—After making  
10 the results of the assessment under subsection (c) avail-  
11 able to the public, the Secretary shall issue a solicitation  
12 of offers for proposals for completing construction on any  
13 or all of the nuclear plants assessed under subsection (c).

14 (e) SELECTION OF PROPOSALS.—

15 (1) IN GENERAL.—The Secretary shall recon-  
16 vene the panel of experts designated under sub-  
17 section (b) to review and select the nuclear plants to  
18 be included in the report submitted under subsection  
19 (f), taking into consideration any or all of the fol-  
20 lowing factors:

21 (A) Location of the nuclear plant and the  
22 regional need for expanded power capability.

23 (B) Time to completion.

24 (C) Economic and technical viability for  
25 completion of the nuclear plant.

1 (D) Financial capability of the offeror.

2 (E) Extent of support from regional and  
3 State officials.

4 (F) Experience and past performance of  
5 the offeror in siting, constructing, or operating  
6 nuclear plants.

7 (G) Lowest cost to the Government.

8 (2) REGIONAL AND STATE SUPPORT.—No pro-  
9 posal shall be included in the report submitted under  
10 subsection (f) without endorsement by the State  
11 Governor and by the elected governing bodies of  
12 each political subdivision in which the nuclear plant  
13 is located.

14 (f) REPORT TO CONGRESS.—

15 (1) IN GENERAL.—Not later than June 1,  
16 2002, the Secretary shall submit to Congress a re-  
17 port describing the nuclear plants selected for com-  
18 pletion under subsection (e).

19 (2) CONTENTS.—The report shall—

20 (A) detail the findings under each of the  
21 criteria specified in subsection (e); and

22 (B) include recommendations for action by  
23 Congress to authorize actions to expedite com-  
24 pletion of the nuclear plants.

1           (3) CONSIDERATIONS.—In making rec-  
2           ommendations under paragraph (2)(B), the Sec-  
3           retary shall consider—

4                   (A) the advisability of authorizing payment  
5                   by the Government of Commission user fees (in-  
6                   cluding consideration of the estimated cost to  
7                   the Government of paying such fees); and

8                   (B) other appropriate considerations.

9           (g) AUTHORIZATION OF APPROPRIATIONS.—There  
10          are authorized to be appropriated to the Secretary to carry  
11          out this section \$3,000,000 for fiscal year 2002.

12 **SEC. 203. EARLY SITE PERMIT DEMONSTRATION PROGRAM.**

13          (a) IN GENERAL.—The Secretary shall initiate a pro-  
14          gram of Government/private partnership demonstration  
15          projects to encourage private sector applications to the  
16          Commission for approval of sites that are potentially suit-  
17          able to be used for the construction of future nuclear  
18          plants.

19          (b) SOLICITATION OF PROPOSALS.—Not later than  
20          60 days after the date of enactment of this Act, the Sec-  
21          retary shall issue a solicitation of offers for proposals from  
22          private sector entities to enter into partnerships with the  
23          Secretary to demonstrate the early site permit process.

24          (c) LIST OF APPROVED SITES.—The Secretary shall  
25          create a list of approved sites by December 31, 2003.

1 (d) CRITERIA FOR PROPOSALS.—A proposal sub-  
2 mitted under subsection (b) shall—

3 (1) identify a site owned by the offeror (except  
4 as provided in subsection (e)(2)) that is suitable for  
5 the construction and operation of a new nuclear  
6 plant; and

7 (2) state the agreement of the offeror to pay  
8 not less than  $\frac{1}{2}$  of the costs of—

9 (A) preparation of an application to the  
10 Commission for an early site permit for the site  
11 identified under paragraph (1); and

12 (B) review of the application by the Com-  
13 mission.

14 (e) SELECTION OF PROPOSALS.—(1) The Secretary  
15 shall establish a competitive process to review and select  
16 the projects to be pursued, taking into consideration the  
17 following:

18 (A) Time to prepare the application.

19 (B) Site qualities or characteristics that could  
20 affect the duration of application review.

21 (C) The financial capability of the offeror.

22 (D) The experience of the offeror in siting, con-  
23 structing, or operating nuclear plants.

24 (E) The support of regional and State officials.

1 (F) The need for new electricity supply in the  
2 vicinity of the site, or proximity to suitable trans-  
3 mission lines.

4 (G) Lowest cost to the Government.

5 (2) At least one of the proposals selected under this  
6 subsection shall propose a site on Department of Energy  
7 land.

8 (f) COOPERATIVE AGREEMENTS.—The Secretary  
9 may enter into cooperative agreements with up to 3  
10 offerors selected through the competitive process to pay  
11 not more than  $\frac{1}{2}$  of the costs incurred by the parties to  
12 the agreements for—

13 (1) preparation of an application to the Com-  
14 mission for an early site permit for the site; and

15 (2) review of the application by the Commis-  
16 sion.

17 (g) AUTHORIZATION OF APPROPRIATIONS.—There  
18 are authorized to be appropriated to the Secretary to carry  
19 out this section \$15,000,000 for each of fiscal years 2002  
20 and 2003, to remain available until expended.

21 **SEC. 204. NUCLEAR ENERGY TECHNOLOGY STUDY FOR**  
22 **GENERATION IV REACTORS.**

23 (a) IN GENERAL.—The Secretary shall conduct a  
24 study of Generation IV nuclear energy systems, including  
25 development of a technology roadmap and performance of

1 research and development necessary to make an informed  
2 technical decision regarding the most promising can-  
3 didates for commercial deployment.

4 (b) UPGRADES AND ADDITIONS.—The Secretary may  
5 make upgrades or additions to public or private nuclear  
6 energy research facility infrastructure as needed to carry  
7 out the study under subsection (a).

8 (c) REACTOR CHARACTERISTICS.—To the extent  
9 practicable, in conducting the study under subsection (a),  
10 the Secretary shall study nuclear energy systems that offer  
11 the highest probability of achieving the goals for Genera-  
12 tion IV nuclear energy systems, including—

13 (1) economics competitive with natural gas-  
14 fueled generators;

15 (2) enhanced safety features, including passive  
16 safety features;

17 (3) substantially reduced production of high-  
18 level waste, as compared with the quantity of waste  
19 produced by reactors in operation on the date of en-  
20 actment of this Act;

21 (4) highly proliferation-resistant fuel and waste;

22 (5) sustainable energy generation including op-  
23 timized fuel utilization; and

1           (6) substantially improved thermal efficiency, as  
2           compared with the thermal efficiency of reactors in  
3           operation on the date of enactment of this Act.

4           (d) CONSULTATION.—In conducting the study under  
5           subsection (a), the Secretary shall consult with—

6           (1) the Commission, with respect to evaluation  
7           of regulatory issues; and

8           (2) the International Atomic Energy Agency,  
9           with respect to international safeguards.

10          (e) REPORT.—

11          (1) IN GENERAL.—Not later than December 31,  
12          2002, the Secretary shall submit to Congress a re-  
13          port describing the activities of the Secretary under  
14          this section, and plans for research and development  
15          leading to a public/private cooperative demonstration  
16          of one or more Generation IV nuclear energy sys-  
17          tems.

18          (2) CONTENTS.—The report shall contain—

19                  (A) an assessment of all available tech-  
20                  nologies;

21                  (B) a summary of actions needed for the  
22                  most promising candidates to be considered as  
23                  viable commercial options within the five to ten  
24                  years after the date of the report, with consid-

1           eration of regulatory, economic, and technical  
2           issues;

3           (C) a recommendation of not more than  
4           three promising Generation IV nuclear energy  
5           system concepts for further development;

6           (D) an evaluation of opportunities for pub-  
7           lic/private partnerships;

8           (E) a recommendation for structure of a  
9           public/private partnership to share in develop-  
10          ment and construction costs;

11          (F) a plan leading to the selection and con-  
12          ceptual design, by September 30, 2004, of at  
13          least one Generation IV nuclear energy system  
14          for demonstration through a public/private  
15          partnership;

16          (G) an evaluation of opportunities for  
17          siting demonstration facilities on Department of  
18          Energy land; and

19          (H) a recommendation for appropriate in-  
20          volvement of the Commission.

21          (f) AUTHORIZATION OF APPROPRIATIONS.—There  
22          are authorized to be appropriated to the Secretary to carry  
23          out this section and to carry out the recommendations in  
24          the report submitted under subsection (e)—

25                 (1) \$50,000,000 for fiscal year 2002; and



1           (2) such sums as are necessary for fiscal years  
2           2003 through 2006.

3 **SEC. 205. RESEARCH SUPPORTING REGULATORY PROC-**  
4                   **ESSES FOR NEW REACTOR TECHNOLOGIES**  
5                   **AND DESIGNS.**

6           (a) IN GENERAL.—The Commission shall develop a  
7 comprehensive research program to support resolution of  
8 potential licensing issues associated with new reactor con-  
9 cepts and new technologies that may be incorporated into  
10 new or current designs of nuclear plants.

11          (b) IDENTIFICATION OF CANDIDATE DESIGNS.—The  
12 Commission shall work with the Office of Nuclear Energy,  
13 Science and Technology and the nuclear industry to iden-  
14 tify candidate designs to be addressed by the program.

15          (c) ACTIVITIES TO BE INCLUDED.—The research  
16 shall include—

17               (1) modeling, analyses, tests, and experiments  
18 with respect to total system behavior and response  
19 to hypothesized accidents; and

20               (2) consideration of new reactor technologies  
21 that may affect—

22                   (A) risk-informed licensing of new nuclear  
23 plants;

24                   (B) behavior of advanced fuels;

1 (C) evolving environmental considerations  
2 relative to spent fuel management and health  
3 effect standards;

4 (D) new technologies (such as advanced  
5 sensors, digital instrumentation, and control)  
6 and human factors that affect the application of  
7 new technology to current nuclear plants; and

8 (E) other emerging technical issues.

9 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
10 are authorized to be appropriated to the Commission to  
11 carry out this section—

12 (1) \$25,000,000 for fiscal year 2002; and

13 (2) such sums as are necessary for subsequent  
14 fiscal years.

15 **TITLE III—EVALUATIONS OF**  
16 **NUCLEAR ENERGY**

17 **SEC. 301. ENVIRONMENTALLY PREFERABLE PURCHASING.**

18 (a) ACQUISITION.—For the purposes of Executive  
19 Order No. 13101 (3 C.F.R. 210 (1998)) and policies es-  
20 tablished by the Office of Federal Procurement Policy or  
21 other executive branch offices for the acquisition or use  
22 of environmentally preferable products (as defined in sec-  
23 tion 201 of the Executive order), electricity generated by  
24 a nuclear plant shall be considered to be an environ-  
25 mentally preferable product.

1 (b) PROCUREMENT.—No Federal procurement policy  
2 or program may—

3 (1) discriminate against or exclude nuclear gen-  
4 erated electricity in making purchasing decisions; or

5 (2) subscribe to product certification programs  
6 or recommend product purchases that exclude nu-  
7 clear-generated electricity.

8 **SEC. 302. EMISSION-FREE CONTROL MEASURES UNDER A**  
9 **STATE IMPLEMENTATION PLAN.**

10 (a) DEFINITIONS.—In this section:

11 (1) CRITERIA AIR POLLUTANT.—The term “cri-  
12 teria air pollutant” means a pollutant listed under  
13 section 108(a) of the Clean Air Act (42 U.S.C.  
14 7408(a)).

15 (2) EMISSION-FREE ELECTRICITY SOURCE.—  
16 The term “emission-free electricity source” means—

17 (A) a facility that generates electricity  
18 without emitting criteria pollutants, hazardous  
19 pollutants, or greenhouse gases as a result of  
20 onsite operations of the facility; and

21 (B) a facility that generates electricity  
22 using nuclear fuel that meets all applicable  
23 standards for radiological emissions under sec-  
24 tion 112 of the Clean Air Act (42 U.S.C.  
25 7412).

1           (3) GREENHOUSE GAS.—The term “greenhouse  
2           gas” means a natural or anthropogenic gaseous con-  
3           stituent of the atmosphere that absorbs and re-emits  
4           infrared radiation.

5           (4) HAZARDOUS POLLUTANT.—The term “haz-  
6           ardous pollutant” has the meaning given the term in  
7           section 112(a) of the Clean Air Act (42 U.S.C.  
8           7412(a)).

9           (5) IMPROVEMENT IN AVAILABILITY.—The  
10          term “improvement in availability” means an in-  
11          crease in the amount of electricity produced by an  
12          emission-free electricity source that provides a com-  
13          mensurate reduction in output from emitting  
14          sources.

15          (6) INCREASED EMISSION-FREE CAPACITY  
16          PROJECT.—The term “increased emission-free ca-  
17          pacity project” means a project to construct an  
18          emission-free electricity source or increase the rated  
19          capacity of an existing emission-free electricity  
20          source.

21          (b) TREATMENT OF CERTAIN STATE ACTIONS AS  
22          CONTROL MEASURES.—An action taken by a State to  
23          support the continued operation of an emission-free elec-  
24          tricity source or to support an improvement in availability  
25          or an increased emission-free capacity project shall be con-

1 sidered to be a control measure for the purposes of section  
2 110(a) of the Clean Air Act (42 U.S.C. 7410(a)).

3 (c) ECONOMIC INCENTIVE PROGRAMS.—

4 (1) CRITERIA AIR POLLUTANTS AND HAZ-  
5 ARDOUS POLLUTANTS.—Emissions of criteria air  
6 pollutants or hazardous pollutants prevented or  
7 avoided by an improvement in availability or the op-  
8 eration of increased emission-free capacity shall be  
9 eligible for, and may not be excluded from, incentive  
10 programs used as control measures, including pro-  
11 grams authorizing emission trades, revolving loan  
12 funds, tax benefits, and special financing programs.

13 (2) GREENHOUSE GASES.—Emissions of green-  
14 house gases prevented or avoided by an improvement  
15 in availability or the operation of increased emission-  
16 free capacity shall be eligible for, and may not be ex-  
17 cluded from, incentive programs used as control  
18 measures on the national, regional, State, or local  
19 level.

20 **SEC. 303. PROHIBITION OF DISCRIMINATION AGAINST**  
21 **EMISSION-FREE ELECTRICITY PROJECTS IN**  
22 **INTERNATIONAL DEVELOPMENT PROGRAMS.**

23 (a) PROHIBITION.—No Federal funds shall be used  
24 to support a domestic or international organization en-  
25 gaged in the financing, development, insuring, or under-

1 writing of emission-free electricity production facilities if  
2 the organization fails to make reasonable efforts to include  
3 projects that use nuclear plants.

4 (b) REQUEST FOR POLICIES.—The Secretary of En-  
5 ergy shall request copies of all written policies regarding  
6 the eligibility of nuclear plants for funding or support  
7 from international or domestic organizations engaged in  
8 the financing, development, insuring, or underwriting of  
9 emission-free electricity production facilities, including—

10 (1) the Agency for International Development;

11 (2) the World Bank;

12 (3) the Overseas Private Investment Corpora-  
13 tion;

14 (4) the International Monetary Fund; and

15 (5) the Export-Import Bank.

16 **TITLE IV—DEVELOPMENT OF**  
17 **NATIONAL SPENT NUCLEAR**  
18 **FUEL STRATEGY**

19 **SEC. 401. FINDING.**

20 Congress finds that national policy on spent nuclear  
21 fuel may evolve with time as improved technologies for  
22 spent fuel are developed or as national energy needs  
23 evolve.

1 **SEC. 402. OFFICE OF SPENT NUCLEAR FUEL RESEARCH.**

2 (a) DEFINITION.—In this section the term “Associate  
3 Director” means the Associate Director of the Office of  
4 Spent Nuclear Fuel Research established by subsection  
5 (b).

6 (b) ESTABLISHMENT.—There is established an Office  
7 of Spent Nuclear Fuel Research within the Office of Nu-  
8 clear Energy, Science and Technology of the Department  
9 of Energy.

10 (c) HEAD OF OFFICE.—The Office of Spent Nuclear  
11 Fuel Research shall be headed by the Associate Director,  
12 who shall be a member of the Senior Executive Service  
13 appointed by the Director of the Office of Nuclear Energy,  
14 Science and Technology, and compensated at a rate deter-  
15 mined by applicable law.

16 (d) DUTIES OF THE ASSOCIATE DIRECTOR.—

17 (1) PARTICIPATION.—The Associate Director  
18 shall coordinate the participation of national labora-  
19 tories, other Department of Energy facilities, univer-  
20 sities, the commercial nuclear industry, and other  
21 organizations in the investigation of technologies for  
22 the treatment, recycling, and disposal of spent nu-  
23 clear fuel and high-level radioactive waste.

24 (2) ACTIVITIES.—The Associate Director  
25 shall—

1 (A) develop a research plan to provide rec-  
2 ommendations to the Secretary by 2015;

3 (B) identify promising technologies for the  
4 treatment, recycling, and disposal of spent nu-  
5 clear fuel and high-level radioactive waste;

6 (C) conduct research, development, and  
7 demonstration activities for promising tech-  
8 nologies;

9 (D) ensure that all activities include as key  
10 objectives minimization of proliferation concerns  
11 and risk to health of the general public or site  
12 workers, as well as development of cost-effective  
13 technologies;

14 (E) require research on both reactor-based  
15 and accelerator-based transmutation systems;

16 (F) require research on advanced proc-  
17 essing and separations;

18 (G) include participation of international  
19 collaborators in research efforts, and provide  
20 funding to a collaborator that brings unique ca-  
21 pabilities not available in the United States if  
22 the country in which the collaborator is located  
23 is unable to provide support; and

24 (H) ensure that research efforts are co-  
25 ordinated with research on advanced fuel cycles



1           and reactors conducted by the Office of Nuclear  
2           Energy, Science and Technology.

3           (e) GRANT AND CONTRACT AUTHORITY.—The Sec-  
4           retary may make grants, or enter into contracts, for the  
5           purposes of the research projects and activities described  
6           in subsection (d)(2).

7           (f) REPORT.—The Associate Director shall annually  
8           submit to Congress a report on the activities and expendi-  
9           tures of the Office that describes the progress being made  
10          in achieving the objectives of this section.

11   **SEC. 403. ADVANCED FUEL RECYCLING TECHNOLOGY DE-**  
12                                   **VELOPMENT PROGRAM.**

13          (a) IN GENERAL.—The Secretary, acting through the  
14          Director of the Office of Nuclear Energy, Science and  
15          Technology, shall conduct an advanced fuel recycling tech-  
16          nology research and development program to further the  
17          availability of electrometallurgical technology as a pro-  
18          liferation-resistant alternative to aqueous reprocessing in  
19          support of evaluation of alternative national strategies for  
20          spent nuclear fuel and the Generation IV advanced reactor  
21          concepts, subject to annual review by the Nuclear Energy  
22          Research Advisory Committee.

23          (b) REPORTS.—The Secretary shall submit to the  
24          Committee on Science and the Committee on Appropria-  
25          tions of the House of Representatives and the Committee

1 on Energy and Natural Resources and the Committee on  
2 Appropriations of the Senate an annual report on the ac-  
3 tivities of the advanced fuel recycling technology develop-  
4 ment program.

5 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
6 are authorized to be appropriated to the Secretary to carry  
7 out this section—

8 (1) \$10,000,000 for fiscal year 2002; and

9 (2) such sums as are necessary for fiscal years  
10 2003 through 2006.

11 **TITLE V—NATIONAL**  
12 **ACCELERATOR SITE**

13 **SEC. 501. FINDINGS.**

14 Congress finds that—

15 (1)(A) high-current proton accelerators are ca-  
16 pable of producing significant quantities of neutrons  
17 through the spallation process without using a crit-  
18 ical assembly; and

19 (B) the availability of high-neutron fluences en-  
20 ables a wide range of missions of major national im-  
21 portance to be conducted;

22 (2)(A) public acceptance of repositories, wheth-  
23 er for spent fuel or for final waste products from  
24 spent fuel, may be enhanced if the radio-toxicity of  
25 the materials in the repository can be reduced;

1           (B) transmutation of long-lived radioactive spe-  
2           cies by an intense neutron source provides an ap-  
3           proach to such a reduction in toxicity; and

4           (C) research and development in this area  
5           (which, when the source of neutrons is derived from  
6           an accelerator, is called “accelerator transmutation  
7           of waste”) should be an important part of a national  
8           spent fuel strategy;

9           (3)(A) nuclear weapons require a reliable source  
10          of tritium;

11          (B) the Department of Energy has identified  
12          production of tritium in a commercial light water re-  
13          actor as the first option to be pursued;

14          (C) the importance of tritium supply is of suffi-  
15          cient magnitude that a backup technology should be  
16          demonstrated and available for rapid scale-up to full  
17          requirements;

18          (D) evaluation of tritium production by a high-  
19          current accelerator has been underway; and

20          (E) accelerator production of tritium should be  
21          demonstrated, so that the capability can be scaled  
22          up to levels required for the weapons stockpile if dif-  
23          ficulties arise with the reactor approach;

24          (4)(A) radioisotopes are required in many med-  
25          ical procedures;

1 (B) research on new medical procedures is ad-  
2 versely affected by the limited availability of produc-  
3 tion facilities for certain radioisotopes; and

4 (C) high-current accelerators are an important  
5 source of radioisotopes, and are best suited for pro-  
6 duction of proton-rich isotopes; and

7 (5)(A) a spallation source provides a continuum  
8 of neutron energies; and

9 (B) the energy spectrum of neutrons can be al-  
10 tered and tailored to allow a wide range of experi-  
11 ments in support of nuclear engineering studies of  
12 alternative reactor configurations, including studies  
13 of materials that may be used in future fission or fu-  
14 sion systems.

15 **SEC. 502. DEFINITION.**

16 In this title, the term “Program” means the Ad-  
17 vanced Accelerator Applications Program established  
18 under section 503.

19 **SEC. 503. ADVANCED ACCELERATOR APPLICATIONS PRO-**  
20 **GRAM.**

21 (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
22 shall establish a program to be known as the “Advanced  
23 Accelerator Applications Program”.

1 (b) MISSIONS.—The missions of the Program shall  
2 include conducting scientific or engineering research, de-  
3 velopment, and demonstrations on—

4 (1) accelerator production of tritium as a  
5 backup technology;

6 (2) transmutation of spent nuclear fuel and  
7 waste;

8 (3) production of radioisotopes;

9 (4) advanced nuclear engineering concepts, in-  
10 cluding material science issues; and

11 (5) other applications that may be identified.

12 (c) ADMINISTRATION.—The Program shall be admin-  
13 istered by the Office of Nuclear Energy, Science and  
14 Technology—

15 (1) subject to the concurrence of the Adminis-  
16 trator for Nuclear Security, for all activities related  
17 to tritium production;

18 (2) in consultation with the Office of Civilian  
19 Radioactive Waste Management, for all activities re-  
20 lating to the impact of waste transmutation on re-  
21 pository requirements; and

22 (3) in consultation with other Federal agencies  
23 as deemed appropriate by the Secretary.

24 (d) PARTICIPATION.—The Office of Nuclear Energy,  
25 Science and Technology shall encourage participation of

1 international collaborators, industrial partners, national  
2 laboratories, other Department of Energy facilities, and,  
3 through support for new graduate engineering and science  
4 students and professors, universities.

5 (e) REPORT TO CONGRESS.—

6 (1) CONTENTS.—The Office of Nuclear Energy,  
7 Science and Technology shall prepare a report on  
8 the project proposed at the location identified under  
9 section 3133(c) of the National Defense Authoriza-  
10 tion Act for Fiscal Year 1996 (42 U.S.C. 2121  
11 note). The report shall—

12 (A) specify a detailed time line for con-  
13 struction and for operation of all activities;

14 (B) identify opportunities for involvement  
15 of the private sector in production and use of  
16 radioisotopes; and

17 (C) contain a recommendation for funding  
18 required to accomplish the project in future fis-  
19 cal years.

20 (2) SUBMITTAL TO CONGRESS.—Not later than  
21 March 31, 2002, the Secretary shall submit the re-  
22 port to the Committee on Energy and Natural Re-  
23 sources and Committee on Appropriations of the  
24 Senate, and to the Committee on Armed Services,

1 Committee on Science, and Committee on Appro-  
2 priations of the House of Representatives.

3 (f) AUTHORIZATION OF APPROPRIATIONS.—

4 (1) PROPOSAL.—There are authorized to be ap-  
5 propriated to the Secretary for the preparation and  
6 submittal of the report under subsection (e)  
7 \$5,000,000 for each of fiscal years 2002 and 2003.

8 (2) RESEARCH, DEVELOPMENT, AND DEM-  
9 ONSTRATION ACTIVITIES.—There are authorized to  
10 be appropriated to the Secretary for research, devel-  
11 opment, and demonstration activities of the  
12 Program—

13 (A) \$120,000,000 for fiscal year 2002; and

14 (B) such sums as are necessary for subse-  
15 quent fiscal years.

16 **TITLE VI—NUCLEAR REGU-**  
17 **LATORY COMMISSION RE-**  
18 **FORM**

19 **SEC. 601. DEFINITIONS.**

20 Section 11 of the Atomic Energy Act of 1954 (42  
21 U.S.C. 2014) is amended—

22 (1) in subsection f., by striking “Atomic Energy  
23 Commission” and inserting “Nuclear Regulatory  
24 Commission”; and

1           (2) by redesignating subsection jj. as subsection  
2           ii..

3 **SEC. 602. OFFICE LOCATION.**

4           Section 23 of the Atomic Energy Act of 1954 (42  
5 U.S.C. 2033) is amended by striking “; however, the Com-  
6 mission shall maintain an office for the service of process  
7 and papers within the District of Columbia”.

8 **SEC. 603. LICENSE PERIOD.**

9           Section 103 c. of the Atomic Energy Act of 1954 (42  
10 U.S.C. 2133(c)) is amended—

11           (1) by striking “c. Each such” and inserting  
12           the following:

13           “c. LICENSE PERIOD.—

14           “(1) IN GENERAL.—Each such”; and

15           (2) by adding at the end the following:

16           “(2) COMBINED LICENSES.—In the case of a  
17           combined construction and operating license issued  
18           under section 185 b., the initial duration of the li-  
19           cense may not exceed 40 years from the date on  
20           which the Commission finds, before operation of the  
21           facility, that the acceptance criteria required by sec-  
22           tion 185 b. are met.”.



1 **SEC. 604. ELIMINATION OF FOREIGN OWNERSHIP RESTRIC-**  
2 **TIONS.**

3 Section 104 d. of the Atomic Energy Act of 1954 (42  
4 U.S.C. 2134(d)) is amended by striking the second sen-  
5 tence.

6 **SEC. 605. ELIMINATION OF DUPLICATIVE ANTITRUST RE-**  
7 **VIEW.**

8 Section 105 of the Atomic Energy Act of 1954 (42  
9 U.S.C. 2135) is amended by striking subsection c. and in-  
10 serting the following:

11 “c. CONDITIONS.—

12 “(1) IN GENERAL.—A condition for a grant of  
13 a license imposed by the Commission under this sec-  
14 tion in effect on the date of enactment of the Elec-  
15 tricity Supply Assurance Act of 2001 shall remain in  
16 effect until the condition is modified or removed by  
17 the Commission.

18 “(2) MODIFICATION.—If a person that is li-  
19 censed to construct or operate a utilization or pro-  
20 duction facility applies for reconsideration under this  
21 section of a condition imposed in the person’s li-  
22 cense, the Commission shall conduct a proceeding,  
23 on an expedited basis, to determine whether the li-  
24 cense condition—

25 “(A) is necessary to ensure compliance  
26 with subsection a.; or

1 “(B) should be modified or removed.”.

2 **SEC. 606. GIFT ACCEPTANCE AUTHORITY.**

3 (a) IN GENERAL.—Section 161 g. of the Atomic En-  
4 ergy Act of 1954 (42 U.S.C. 2201(g)) is amended—

5 (1) by inserting “(1)” after “g.”;

6 (2) by striking “this Act;” and inserting “this  
7 Act; or”; and

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

9 “(2) accept, hold, utilize, and administer gifts  
10 of real and personal property (not including money)  
11 for the purpose of aiding or facilitating the work of  
12 the Commission;”.

13 (b) CRITERIA FOR ACCEPTANCE OF GIFTS.—

14 (1) IN GENERAL.—Chapter 14 of title I of the  
15 Atomic Energy Act of 1954 (42 U.S.C. 2201 et  
16 seq.) is amended by adding at the end the following:

17 **“SEC. 170C. CRITERIA FOR ACCEPTANCE OF GIFTS.**

18 “(a) IN GENERAL.—The Commission shall establish  
19 written criteria for determining whether to accept gifts  
20 under section 161 g.(2).

21 “(b) CONSIDERATIONS.—The criteria under sub-  
22 section (a) shall take into consideration whether the ac-  
23 ceptance of a gift would compromise the integrity of, or  
24 the appearance of the integrity of, the Commission or any  
25 officer or employee of the Commission.”.

1           (2) CONFORMING AMENDMENT.—The table of  
2 contents of the Atomic Energy Act of 1954 (42  
3 U.S.C. prec. 2011) is amended by adding at the end  
4 of the items relating to chapter 14 the following:

“Sec. 170C. Criteria for acceptance of gifts.”.

5 **SEC. 607. AUTHORITY OVER FORMER LICENSEES FOR DE-**  
6 **COMMISSIONING FUNDING.**

7 Section 161 i. of the Atomic Energy Act of 1954 (42  
8 U.S.C. 2201(i)) is amended—

9           (1) by striking “and (3)” and inserting “(3)”;  
10 and

11           (2) by inserting before the semicolon at the end  
12 the following: “, and (4) to ensure that sufficient  
13 funds will be available for the decommissioning of  
14 any production or utilization facility licensed under  
15 section 103 or 104 b., including standards and re-  
16 strictions governing the control, maintenance, use,  
17 and disbursement by any former licensee under this  
18 Act that has control over any fund for the decom-  
19 missioning of the facility”.

20 **SEC. 608. CARRYING OF FIREARMS BY LICENSEE EMPLOY-**  
21 **EES.**

22           (a) IN GENERAL.—Chapter 14 of title I of the Atomic  
23 Energy Act of 1954 (42 U.S.C. 2201 et seq.) (as amended  
24 by section 606(b) of this Act) is amended—

1           (1) in section 161, by striking subsection k. and  
2 inserting the following:

3           “k. authorize to carry a firearm in the perform-  
4 ance of official duties such of its members, officers,  
5 and employees, such of the employees of its contrac-  
6 tors and subcontractors (at any tier) engaged in the  
7 protection of property under the jurisdiction of the  
8 United States located at facilities owned by or con-  
9 tracted to the United States or being transported to  
10 or from such facilities, and such of the employees of  
11 persons licensed or certified by the Commission (in-  
12 cluding employees of contractors of licensees or cer-  
13 tificate holders) engaged in the protection of facili-  
14 ties owned or operated by a Commission licensee or  
15 certificate holder that are designated by the Com-  
16 mission or in the protection of property of signifi-  
17 cance to the common defense and security located at  
18 facilities owned or operated by a Commission li-  
19 censee or certificate holder or being transported to  
20 or from such facilities, as the Commission considers  
21 necessary in the interest of the common defense and  
22 security;” and

23           (2) by adding at the end the following:

1 **“SEC. 170D. CARRYING OF FIREARMS.**

2       “(a) **AUTHORITY TO MAKE ARREST.**—A person au-  
3 thorized under section 161 k. to carry a firearm may,  
4 while in the performance of, and in connection with, offi-  
5 cial duties, arrest an individual without a warrant for any  
6 offense against the United States committed in the pres-  
7 ence of the person or for any felony under the laws of  
8 the United States if the person has a reasonable ground  
9 to believe that the individual has committed or is commit-  
10 ting such a felony.

11       “(b) **LIMITATION.**—An employee of a contractor or  
12 subcontractor or of a Commission licensee or certificate  
13 holder (or a contractor of a licensee or certificate holder)  
14 authorized to make an arrest under subsection (a) may  
15 make an arrest only—

16               “(1) when the individual is within, or is in  
17 flight directly from, the area in which the offense  
18 was committed; and

19               “(2) in the enforcement of—

20                       “(A) a law regarding the property of the  
21 United States in the custody of the Department  
22 of Energy, the Commission, or a contractor of  
23 the Department of Energy or Commission or a  
24 licensee or certificate holder of the Commission;

25                       “(B) a law applicable to facilities owned or  
26 operated by a Commission licensee or certificate

1 holder that are designated by the Commission  
2 under section 161 k.;

3 “(C) a law applicable to property of signifi-  
4 cance to the common defense and security that  
5 is in the custody of a licensee or certificate  
6 holder or a contractor of a licensee or certificate  
7 holder of the Commission; or

8 “(D) any provision of this Act that sub-  
9 jects an offender to a fine, imprisonment, or  
10 both.

11 “(c) OTHER AUTHORITY.—The arrest authority con-  
12 ferred by this section is in addition to any arrest authority  
13 under other law.

14 “(d) GUIDELINES.—The Secretary and the Commis-  
15 sion, with the approval of the Attorney General, shall issue  
16 guidelines to implement section 161 k. and this section.”.

17 (b) CONFORMING AMENDMENT.—The table of con-  
18 tents of the Atomic Energy Act of 1954 (42 U.S.C. prec.  
19 2011) (as amended by section 605(b)(2) of this Act) is  
20 amended by adding at the end of the items relating to  
21 chapter 14 the following:

“Sec. 170D. Carrying of firearms.”.

22 **SEC. 609. COST RECOVERY FROM GOVERNMENT AGENCIES.**

23 Section 161 w. of the Atomic Energy Act of 1954  
24 (42 U.S.C. 2201(w)) is amended—

1           (1) by striking “, or which operates any facility  
2 regulated or certified under section 1701 or 1702,”;

3           (2) by striking “483a of title 31 of the United  
4 States Code” and inserting “9701 of title 31, United  
5 States Code,”; and

6           (3) by inserting before the period at the end the  
7 following: “, and, commencing October 1, 2002, pre-  
8 scribe and collect from any other Government agen-  
9 cy any fee, charge, or price that the Commission  
10 may require in accordance with section 9701 of title  
11 31, United States Code, or any other law”.

12 **SEC. 610. HEARING PROCEDURES.**

13           Section 189 a.(1) of the Atomic Energy Act of 1954  
14 (42 U.S.C. 2239(a)(1)) is amended by adding at the end  
15 the following:

16           “(C) HEARINGS.—A hearing under this section shall  
17 be conducted using informal adjudicatory procedures es-  
18 tablished under sections 553 and 555 of title 5, United  
19 States Code, unless the Commission determines that for-  
20 mal adjudicatory procedures are necessary—

21           “(i) to develop a sufficient record; or

22           “(ii) to achieve fairness.”.

1 **SEC. 611. UNAUTHORIZED INTRODUCTION OF DANGEROUS**  
2 **WEAPONS.**

3 Section 229 a. of the Atomic Energy Act of 1954 (42  
4 U.S.C. 2278a(a)) is amended in the first sentence by in-  
5 serting “or subject to the licensing authority of the Com-  
6 mission or to certification by the Commission under this  
7 Act or any other Act” before the period at the end.

8 **SEC. 612. SABOTAGE OF NUCLEAR FACILITIES OR FUEL.**

9 Section 236 a. of the Atomic Energy Act of 1954 (42  
10 U.S.C. 2284(a)) is amended—

11 (1) in paragraph (2), by striking “storage facil-  
12 ity” and inserting “storage, treatment, or disposal  
13 facility”;

14 (2) in paragraph (3)—

15 (A) by striking “such a utilization facility”  
16 and inserting “a utilization facility licensed  
17 under this Act”; and

18 (B) by striking “or” at the end;

19 (3) in paragraph (4)—

20 (A) by striking “facility licensed” and in-  
21 serting “or nuclear fuel fabrication facility li-  
22 censed or certified”; and

23 (B) by striking the period at the end and  
24 inserting “; or”; and

25 (4) by adding at the end the following:



1           “(5) any production, utilization, waste storage,  
2           waste treatment, waste disposal, uranium enrich-  
3           ment, or nuclear fuel fabrication facility subject to  
4           licensing or certification under this Act during con-  
5           struction of the facility, if the person knows or rea-  
6           sonably should know that there is a significant pos-  
7           sibility that the destruction or damage caused or at-  
8           tempted to be caused could adversely affect public  
9           health and safety during the operation of the facil-  
10          ity.”.

11 **SEC. 613. NUCLEAR DECOMMISSIONING OBLIGATIONS OF**  
12 **NONLICENSEES.**

13           (a) IN GENERAL.—The Atomic Energy Act of 1954  
14 is amended by inserting after section 241 (42 U.S.C.  
15 2015) the following:

16 **“SEC. 242. NUCLEAR DECOMMISSIONING OBLIGATIONS OF**  
17 **NONLICENSEES.**

18           “(a) DEFINITIONS.—In this section—

19                   “(1) the term ‘facility’ means a commercial nu-  
20                   clear electric generating facility for which a Federal  
21                   nuclear obligation is incurred;

22                   “(2) the term ‘Federal nuclear obligation’  
23                   means—

24                           “(A) a nuclear decommissioning obligation;

1           “(B) a fee required to be paid to the Fed-  
2           eral Government by a licensee for the storage,  
3           transportation, or disposal of spent nuclear fuel  
4           and high-level radioactive waste, including a fee  
5           required under the Nuclear Waste Policy Act of  
6           1982 (42 U.S.C. 10101 et seq.); and

7           “(C) an assessment by the Federal Gov-  
8           ernment to fund the cost of decontamination  
9           and decommissioning of uranium enrichment  
10          facilities, including an assessment required  
11          under chapter 28 of this Act; and

12          “(3) the term ‘nuclear decommissioning obliga-  
13          tion’ means an expense incurred to ensure the con-  
14          tinued protection of the public from the dangers of  
15          any residual radioactivity or other hazards present  
16          at a facility at the time the facility is decommis-  
17          sioned, including all costs of actions required under  
18          rules, regulations, and orders of the Commission  
19          for—

20                 “(A) entombing, dismantling, and decom-  
21                 missioning a facility; and

22                 “(B) administrative, preparatory, security,  
23                 and radiation monitoring expenses associated  
24                 with entombing, dismantling, and decommis-  
25                 sioning a facility.

1       “(b) DECOMMISSIONING OBLIGATIONS.—After public  
2 notice and in accordance with section 181, the Commis-  
3 sion shall establish by rule, regulation, or order any re-  
4 quirement that the Commission considers necessary to en-  
5 sure that a person that is not a licensee (including a  
6 former licensee) complies fully with any nuclear decommis-  
7 sioning obligation.”.

8       (b) CONFORMING AMENDMENT.—The table of con-  
9 tents of the Atomic Energy Act of 1954 (42 U.S.C. prec.  
10 2011) is amended by inserting after the item relating to  
11 section 241 the following:

“Sec. 242. Nuclear decommissioning obligations of nonlicensees.”.

