

107TH CONGRESS  
1ST SESSION

# S. 1667

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

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IN THE SENATE OF THE UNITED STATES

NOVEMBER 8, 2001

Mr. DOMENICI introduced the following bill; which was read twice and referred  
to the Committee on Energy and Natural Resources

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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       “Nuclear Energy Electricity Supply Assurance Act of  
6       2001”.

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. 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. Establishment of programs.
- Sec. 122. Nuclear energy research initiative.
- Sec. 123. Nuclear energy plant optimization program.
- Sec. 124. Upgrading of nuclear plant operations.
- Sec. 125. University programs.
- Sec. 126. Prohibition of commercial sales of uranium and conversion held by  
the Department of Energy until 2006.
- Sec. 127. Maintenance of a viable domestic uranium conversion industry.
- Sec. 128. Portsmouth gaseous diffusion plant.
- Sec. 129. Nuclear generation report.

TITLE II—CONSTRUCTION OF NUCLEAR PLANTS

- Sec. 201. Establishment of programs.
- 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. Findings.
- Sec. 402. Office of spent nuclear fuel research.
- Sec. 403. Advanced fuel recycling technology development program.

TITLE V—NATIONAL ACCELERATOR SITE

- Sec. 501. Findings.
- 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.
- Sec. 614. Effective date.

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

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

15 (C) nuclear plants are demonstrating excellent  
 16 reliability as the plants produce power at low cost  
 17 with a superb safety record; and

1           (D) the generation costs of nuclear power are  
2           not subject to price fluctuations of fossil fuels be-  
3           cause nuclear fuels can be mined domestically or  
4           purchased from reliable trading partners;

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

10          (6) to ensure the reliability of electricity supply  
11          and delivery, the United States needs programs to  
12          encourage the extended or more efficient operation  
13          of currently existing nuclear plants and the con-  
14          struction of new nuclear plants;

15          (7) a qualified workforce is a prerequisite to  
16          continued safe operation of—

17                 (A) nuclear plants;

18                 (B) the nuclear navy;

19                 (C) programs dealing with high-level or  
20                 low-level waste from civilian or defense facili-  
21                 ties; and

22                 (D) research and medical uses of nuclear  
23                 technologies;

24          (8) uncertainty surrounding the costs associ-  
25          ated with regulatory approval for siting, con-

1 structing, and operating nuclear plants confuses the  
2 economics for new plant investments;

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

7 (10)(A) technology developed in the United  
8 States and worldwide, broadly labeled as the Genera-  
9 tion IV Reactor, is demonstrating that new designs  
10 of nuclear reactors are feasible;

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

14 (C)(i) the nuclear facility infrastructure needed  
15 to conduct nuclear energy research and development  
16 in the United States has been allowed to erode over  
17 the past decade; and

18 (ii) that infrastructure must be restored to sup-  
19 port development of Generation IV nuclear energy  
20 systems;

21 (11)(A) to ensure the long-term viability of nu-  
22 clear power, the public must be confident that final  
23 waste forms resulting from spent fuel are controlled  
24 so as to have negligible impact on the environment;  
25 and

1 (B) continued research on repositories, and on  
 2 approaches to mitigate the toxicity of materials en-  
 3 tering any future repository, would serve that public  
 4 interest; and

5 (12)(A) the Nuclear Regulatory Commission  
 6 must continue its stewardship of the safety of our  
 7 nuclear industry;

8 (B) at the same time, the Commission must  
 9 streamline processes wherever possible to provide  
 10 timely responses to a wide range of safety, upgrade,  
 11 and licensing issues;

12 (C) the Commission should conduct research on  
 13 new reactor technologies to support future regu-  
 14 latory decisions; and

15 (D) a revision of certain Commission proce-  
 16 dures would assist in more timely processing of li-  
 17 cense applications and other requests for regulatory  
 18 action.

19 **SEC. 3. DEFINITIONS.**

20 In this Act:

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

23 (2) EARLY SITE PERMIT.—The term “Early  
 24 Site Permit” means a permit for a site to be a fu-

1       ture location for a nuclear plant under subpart A of  
2       part 52 of title 10, Code of Federal Regulations.

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

6           (4) SECRETARY.—The term “Secretary” means  
7       the Secretary of Energy.

8       **TITLE I—SUPPORT FOR CONTIN-**  
9       **UED USE OF NUCLEAR EN-**  
10      **ERGY**

11       **Subtitle A—Price-Anderson**  
12       **Amendments**

13      **SEC. 101. SHORT TITLE.**

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

16      **SEC. 102. INDEMNIFICATION AUTHORITY.**

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

20           (1) in the subsection heading, by striking “LI-  
21       censes” and inserting “LICENSEES”; and

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

24       (b) INDEMNIFICATION OF DEPARTMENT OF ENERGY  
25      CONTRACTORS.—Section 170d.(1)(A) of the Atomic En-

1 ergy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended  
 2 by striking “, until August 1, 2002,”.

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

8 **SEC. 103. MAXIMUM ASSESSMENT.**

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

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

14 (a) AGGREGATE LIABILITY LIMIT.—Section 170d. of  
 15 the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is  
 16 amended by striking paragraph (2) and inserting the fol-  
 17 lowing:

18 “(2) LIABILITY LIMIT.—In an agreement of in-  
 19 demnification entered into under paragraph (1), the  
 20 Secretary—

21 “(A) may require the contractor to provide  
 22 and maintain the financial protection of such a  
 23 type and in such amounts as the Secretary shall  
 24 determine to be appropriate to cover public li-



1 ability arising out of or in connection with the  
2 contractual activity; and

3 “(B) shall indemnify the persons indem-  
4 nified against such claims above the amount of  
5 the financial protection required, in the amount  
6 of \$10,000,000,000 (subject to adjustment for  
7 inflation under subsection t.), in the aggregate,  
8 for all persons indemnified in connection with  
9 the contract and for each nuclear incident, in-  
10 cluding such legal costs of the contractor as are  
11 approved by the Secretary.”.

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

16 “(3) CONTRACT AMENDMENTS.—All agree-  
17 ments of indemnification under which the Depart-  
18 ment of Energy (or its predecessor agencies) may be  
19 required to indemnify any person, shall be deemed to  
20 be amended, on the date of enactment of the Price-  
21 Anderson Amendments Act of 2001, to reflect the  
22 amount of indemnity for public liability and any ap-  
23 plicable financial protection required of the con-  
24 tractor under this subsection on that date.”.

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

2 (a) AMOUNT OF INDEMNIFICATION.—Section  
3 170d.(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 170e.(4) of the Atom-  
7 ic Energy Act of 1954 (42 U.S.C. 2210(e)(4)) is amended  
8 by striking “\$100,000,000” and inserting  
9 “\$500,000,000”.

10 **SEC. 106. REPORTS.**

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

17 (1) by designating paragraph (2) as paragraph  
18 (3); and

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

20 “(2) ADJUSTMENT.—The Secretary shall adjust  
21 the amount of indemnification provided under an  
22 agreement of indemnification under subsection d.  
23 not less than once during each 5-year period fol-  
24 lowing the date of enactment of the Price-Anderson  
25 Amendments Act of 2001, in accordance with the

1        aggregate percentage change in the Consumer Price  
2        Index since—

3                “(A) that date of enactment, in the case of  
4                the first adjustment under this subsection; or  
5                “(B) the previous adjustment under this  
6                subsection.”.

7    **SEC. 108. CIVIL PENALTIES.**

8        (a) REPEAL OF AUTOMATIC REMISSION.—Section  
9    234Ab.(2) of the Atomic Energy Act of 1954 (42 U.S.C.  
10   2282a(b)(2)) is amended by striking the last sentence.

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

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

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

10 **Subtitle B—Leadership of the Of-**  
11 **fice of Nuclear Energy, Science,**  
12 **and Technology and the Office**  
13 **of Science**

(a) IN GENERAL.—Section 203(a) of the Department of Energy Organization Act (42 U.S.C. 7133(a)) is amended in the matter preceding paragraph (1) by striking “eight” and inserting “ten”.

(1) to one of the Assistant Secretaries, the functions performed by the Director of the Office of Science as of the date of enactment of this Act; and

1 (2) to the other, the functions performed by the  
2 Director of the Office of Nuclear Energy, Science,  
3 and Technology as of that date.

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

6 **SEC. 121. ESTABLISHMENT OF PROGRAMS.**

7 The Secretary shall establish or continue programs  
8 administered by the Office of Nuclear Energy, Science,  
9 and Technology to—

10 (1) support the Nuclear Energy Research Ini-  
11 tiative, the Nuclear Energy Plant Optimization Pro-  
12 gram, and the Nuclear Energy Technology Program;

13 (2) encourage investments to increase the elec-  
14 tricity capacity at commercial nuclear plants in ex-  
15 istence on the date of enactment of this Act;

16 (3) ensure continued viability of a domestic ca-  
17 pability for uranium mining, conversion, and enrich-  
18 ment industries; and

19 (4) support university nuclear engineering edu-  
20 cation research and infrastructure programs, includ-  
21 ing closely related specialties such as health physics,  
22 actinide chemistry, and material sciences.

23 **SEC. 122. NUCLEAR ENERGY RESEARCH INITIATIVE.**

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

1 Nuclear Energy Research Initiative to be managed by the  
 2 Director of the Office of Nuclear Energy, Science, and  
 3 Technology for grants to be competitively awarded and  
 4 subject to peer review for research relating to nuclear  
 5 energy—

6 (1) \$60,000,000 for fiscal year 2002; and

7 (2) such sums as are necessary for fiscal years  
 8 2003 through 2006.

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

16 **SEC. 123. NUCLEAR ENERGY PLANT OPTIMIZATION PRO-**  
 17 **GRAM.**

18 (a) AUTHORIZATION OF APPROPRIATIONS.—There  
 19 are authorized to be appropriated to the Secretary for a  
 20 Nuclear Energy Plant Optimization Program to be man-  
 21 aged by the Director of the Office of Nuclear Energy,  
 22 Science, and Technology for a joint program with industry  
 23 cost-shared by at least 50 percent and subject to annual  
 24 review by the Secretary of Energy's Nuclear Energy Re-  
 25 search Advisory Committee—

- 1           (1) \$15,000,000 for fiscal year 2002; and  
2           (2) such sums as are necessary for fiscal years  
3       2003 through 2006.

4       (b) REPORTS.—The Secretary shall submit to the  
5       Committee on Science and the Committee on Appropria-  
6       tions of the House of Representatives, and to the Com-  
7       mittee on Energy and Natural Resources and the Com-  
8       mittee on Appropriations of the Senate an annual report  
9       on the activities of the Nuclear Energy Plant Optimization  
10      Program.

11   **SEC. 124. UPRATING OF NUCLEAR PLANT OPERATIONS.**

12       (a) IN GENERAL.—The Secretary, to the extent funds  
13      are available, shall reimburse costs incurred by a licensee  
14      of a nuclear plant as provided in this section.

15       (b) PAYMENT OF COMMISSION USER FEES.—In car-  
16      rying out subsection (a), the Secretary shall reimburse all  
17      user fees incurred by a licensee of a nuclear plant for ob-  
18      taining the approval of the Commission to achieve a per-  
19      manent increase in the rated electricity capacity of the li-  
20      censee's nuclear plant if the licensee achieves the increased  
21      capacity before December 31, 2004.

22       (c) PREFERENCE.—Preference shall be given by the  
23      Secretary to projects in which a single uprating operation  
24      can benefit multiple domestic nuclear power reactors.

25       (d) INCENTIVE PAYMENTS.—

1           (1) IN GENERAL.—In addition to payments  
2       made under subsection (a), the Secretary shall offer  
3       an incentive payment equal to 10 percent of the cap-  
4       ital improvement cost resulting in a permanent in-  
5       crease of at least 5 percent in the rated electricity  
6       capacity of the licensee’s nuclear plant if the licensee  
7       achieves the increased capacity rating before Decem-  
8       ber 31, 2004.

9           (2) LIMITATION.—No incentive payment under  
10      paragraph (1) associated with any single nuclear  
11      unit shall exceed \$1,000,000.

12      (e) AUTHORIZATION OF APPROPRIATIONS.—There is  
13      authorized to be appropriated to carry out this section  
14      \$15,000,000 for each of fiscal years 2002 and 2003.

15      **SEC. 125. UNIVERSITY PROGRAMS.**

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

22      (b) SUPPORT FOR UNIVERSITY RESEARCH REAC-  
23      TORS.—The Secretary may provide grants and other  
24      forms of payments for plant upgrading to universities in



1 the United States that operate and maintain nuclear re-  
2 search reactors.

3 (c) SUPPORT FOR UNIVERSITY RESEARCH AND DE-  
4 VELOPMENT.—The Secretary may provide grants and  
5 other forms of payment for research and development  
6 work by faculty, staff, and students associated with nu-  
7 clear engineering programs and closely related specialties  
8 at universities in the United States.

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

14 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
15 are authorized to be appropriated to carry out this  
16 section—

17 (1) \$34,200,000 for fiscal year 2002, of  
18 which—

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

21 (B) \$10,200,000 shall be available to carry  
22 out subsection (c) of which not less than  
23 \$2,000,000 shall be available to support health  
24 physics programs; and

1 (C) \$11,000,000 shall be available to carry  
 2 out subsection (d) of which not less than  
 3 \$2,000,000 shall be available to support health  
 4 physics programs; and  
 5 (2) such sums as are necessary for subsequent  
 6 fiscal years.

7 **SEC. 126. PROHIBITION OF COMMERCIAL SALES OF URA-**  
 8 **NIUM AND CONVERSION HELD BY THE DE-**  
 9 **PARTMENT OF ENERGY UNTIL 2006.**

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

13 “(2) SALE OF URANIUM HEXAFLUORIDE.—  
 14 “(A) IN GENERAL.—The Secretary shall—  
 15 “(i) sell and receive payment for the  
 16 uranium hexafluoride transferred to the  
 17 Secretary under paragraph (1); and  
 18 “(ii) refrain from sales of its surplus  
 19 natural uranium and conversion services  
 20 through 2006 (except sales or transfers to  
 21 the Tennessee Valley Authority in relation  
 22 to the Department’s HEU or Tritium pro-  
 23 grams, minor quantities associated with  
 24 site cleanup projects, or the Department of  
 25 Energy research reactor sales program).

1                   “(B) REQUIREMENTS.—Under subpara-  
 2                   graph (A)(i), uranium hexafluoride shall be  
 3                   sold—

4                   “(i) in 1995 and 1996 to the Russian  
 5                   Executive Agent at the purchase price for  
 6                   use in matched sales pursuant to the Sus-  
 7                   pension Agreement; or

8                   “(ii) in 2006 for consumption by end  
 9                   users in the United States not before Jan-  
 10                  uary 1, 2007, and in subsequent years, in  
 11                  volumes not to exceed 3,000,000 pounds  
 12                  U<sub>3</sub>O<sub>8</sub> equivalent per year.”.

13 **SEC. 127. MAINTENANCE OF A VIABLE DOMESTIC URANIUM**  
 14 **CONVERSION INDUSTRY.**

15           (a) IN GENERAL.—For Department of Energy ex-  
 16           penses necessary in providing to Converdyn Incorporated  
 17           a payment for losses associated with providing conversion  
 18           services for the production of low-enriched uranium (ex-  
 19           cluding imports related to actions taken under the United  
 20           States/Russia HEU Agreement), there is authorized to be  
 21           appropriated \$8,000,000 for each of fiscal years 2002,  
 22           2003, and 2004.

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

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

5           (B) does not exceed the amount appropriated  
6           under subsection (a); and

7           (2) shall be based contingent on submission to  
8           the Secretary of a financial statement satisfactory to  
9           the Secretary that is certified by an independent  
10          auditor for each year.

11          (c) TIMING.—A payment under subsection (a) shall  
12          be provided as soon as practicable after receipt and  
13          verification of the financial statement submitted under  
14          subsection (b).

15   **SEC. 128. PORTSMOUTH GASEOUS DIFFUSION PLANT.**

16          (a) IN GENERAL.—The Secretary may proceed with  
17          actions required to place the Portsmouth gaseous diffusion  
18          plant into cold standby condition for a period of 5 years.

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

21                (1) would allow its restart, for production of  
22                3,000,000 separative work units per year, to meet  
23                domestic demand for enrichment services; and

24                (2) will facilitate the future decontamination  
25                and decommissioning of the plant.

1 (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
2 authorized to be appropriated to carry out this section—

3 (1) \$36,000,000 for fiscal year 2002; and

4 (2) such sums as are necessary for fiscal years  
5 2003, 2004, and 2005.

6 **SEC. 129. NUCLEAR GENERATION REPORT.**

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

11 (b) CONTENTS.—The report shall—

12 (1) provide current and historical detail  
13 regarding—

14 (A) the number of commercial nuclear  
15 plants and the amount of electricity generated;  
16 and

17 (B) the safety record of commercial nu-  
18 clear plants;

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

21 (A) current and anticipated applications;  
22 and

23 (B) for each current and anticipated  
24 application—

1 (i) the anticipated length of time for  
2 a license renewal application to be pro-  
3 cessed; and

4 (ii) the current and anticipated costs  
5 of each license renewal;

6 (3) assess the capability of the Commission to  
7 evaluate licenses for new advanced reactor designs  
8 and discuss the confirmatory and anticipatory re-  
9 search activities needed to support that capability;

10 (4) detail the efforts of the Commission to pre-  
11 pare for potential new commercial nuclear plants, in-  
12 cluding evaluation of any new plant design and the  
13 licensing process for nuclear plants;

14 (5) state the anticipated length of time for a  
15 new plant license to be processed and the anticipated  
16 cost of such a process; and

17 (6) include recommendations for improvements  
18 in each of the processes reviewed.

## 19 **TITLE II—CONSTRUCTION OF** 20 **NUCLEAR PLANTS**

### 21 **SEC. 201. ESTABLISHMENT OF PROGRAMS.**

22 (a) SECRETARY.—The Secretary shall establish a  
23 program within the Office of Nuclear Energy, Science, and  
24 Technology to—

1 (1) demonstrate the Nuclear Regulatory Com-  
2 mission Early Site Permit process;

3 (2) evaluate opportunities for completion of  
4 partially constructed nuclear plants; and

5 (3) develop a report assessing opportunities for  
6 Generation IV reactors.

7 (b) COMMISSION.—The Commission shall develop a  
8 research program to support regulatory actions relating  
9 to new nuclear plant technologies.

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

11 (a) IN GENERAL.—The Secretary shall solicit infor-  
12 mation on United States nuclear plants requiring addi-  
13 tional capital investment before becoming operational or  
14 being returned to operation to determine which, if any,  
15 should be included in a study of the feasibility of com-  
16 pleting and operating some or all of the nuclear plants  
17 by December 31, 2004, considering technical and eco-  
18 nomic factors.

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

22 (1) review information obtained under sub-  
23 section (a); and

24 (2) identify which unfinished nuclear plants  
25 should be included in a feasibility study.

1       (c) TECHNICAL AND ECONOMIC COMPLETION AS-  
 2       SESSMENT.—On completion of the identification of can-  
 3       didate nuclear plants under subsection (b), the Secretary  
 4       shall commence a detailed technical and economic comple-  
 5       tion assessment that includes, on a unit-specific basis, all  
 6       technical and economic information necessary to permit a  
 7       decision on the feasibility of completing work on any or  
 8       all of the nuclear plants identified under subsection (b).

9       (d) SOLICITATION OF PROPOSALS.—After making  
 10      the results of the feasibility study under subsection (c)  
 11      available to the public, the Secretary shall solicit proposals  
 12      for completing construction on any or all of the nuclear  
 13      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 pursued, taking into consideration any or all of  
 19      the following factors:

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

22                   (B) Time to completion.

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

25                   (D) Financial capability of the offeror.



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

3                   (F) Experience and past performance of  
4                   the members of the offeror in siting, con-  
5                   structing, or operating nuclear generating facili-  
6                   ties.

7                   (G) Lowest cost to the Government.

8                   (2) REGIONAL AND STATE SUPPORT.—No pro-  
9                   posal shall be accepted without endorsement by the  
10                  State Governor and by the elected governing bodies  
11                  of—

12                  (A) each political subdivision in which the  
13                  nuclear plant is located; and

14                  (B) each other political subdivision that  
15                  the Secretary determines has a substantial in-  
16                  terest in the completion of the nuclear plant.

17                  (f) REPORT TO CONGRESS.—

18                  (1) IN GENERAL.—Not later than June 1,  
19                  2002, the Secretary shall submit to Congress a re-  
20                  port describing the reactors identified for completion  
21                  under subsection (e).

22                  (2) CONTENTS.—The report shall—

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

1 (B) include recommendations for action by  
 2 Congress to authorize actions that may be initi-  
 3 ated in fiscal year 2003 to expedite completion  
 4 of the reactors.

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

8 (A) the advisability of authorizing payment  
 9 by the Government of Commission user fees (in-  
 10 cluding consideration of the estimated cost to  
 11 the Government of paying such fees); and

12 (B) other appropriate considerations.

13 (g) AUTHORIZATION OF APPROPRIATIONS.—There is  
 14 authorized to be appropriated to carry out this section  
 15 \$3,000,000 for fiscal year 2002.

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

17 (a) IN GENERAL.—The Secretary shall initiate a pro-  
 18 gram of Government/private partnership demonstration  
 19 projects to encourage private sector applications to the  
 20 Commission for approval of sites that are potentially suit-  
 21 able to be used for the construction of future nuclear  
 22 power generating facilities.

23 (b) PROJECTS.—Not later than 60 days after the  
 24 date of enactment of this Act, the Secretary shall issue

1 a solicitation of offers for proposals from private sector  
2 entities to enter into partnerships with the Secretary to—

3 (1) demonstrate the Early Site Permit process;

4 and

5 (2) create a bank of approved sites by Decem-  
6 ber 31, 2003.

7 (c) CRITERIA FOR PROPOSALS.—A proposal sub-  
8 mitted under subsection (b) shall—

9 (1) identify a site owned by the offeror that is  
10 suitable for the construction and operation of a new  
11 nuclear plant; and

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

14 (A) preparation of an application to the  
15 Commission for an Early Site Permit for the  
16 site identified under paragraph (1); and

17 (B) review of the application by the Com-  
18 mission.

19 (d) SELECTION OF PROPOSALS.—The Secretary shall  
20 establish a competitive process to review and select the  
21 projects to be pursued, taking into consideration the fol-  
22 lowing:

23 (1) Time to prepare the application.

24 (2) Site qualities or characteristics that could  
25 affect the duration of application review.

1           (3) The financial capability of the offeror.

2           (4) The experience of the offeror in siting, con-  
3           structing, or operating nuclear plants.

4           (5) The support of regional and State officials.

5           (6) The need for new electricity supply in the  
6           vicinity of the site, or proximity to suitable trans-  
7           mission lines.

8           (7) Lowest cost to the Government.

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

14               (1) preparation of an application to the Com-  
15          mission for an Early Site Permit for the site; and

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

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

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

24          (a) IN GENERAL.—The Secretary shall conduct a  
25          study of Generation IV nuclear energy systems, including

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

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

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

15 (1) economics competitive with natural gas-  
16 fueled generators;

17 (2) enhanced safety features or passive safety  
18 features;

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

23 (4) highly proliferation resistant fuel and waste;

24 (5) sustainable energy generation including op-  
25 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, the  
5           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 results of the roadmap and plans  
14                 for research and development leading to a public/pri-  
15                 vate cooperative demonstration of one or more Gen-  
16                 eration IV nuclear energy systems.

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

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

20                         (B) a summary of actions needed for the  
21                         most promising candidates to be considered as  
22                         viable commercial options within the five to ten  
23                         years after the date of the report with consider-  
24                         ation of regulatory, economic, and technical  
25                         issues;

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

4 (D) an evaluation of opportunities for pub-  
5 lic/private partnerships;

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

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

14 (G) a recommendation for appropriate in-  
15 volvement of the Commission.

16 (f) AUTHORIZATION OF APPROPRIATIONS.—There  
17 are authorized to be appropriated to carry out this  
18 section—

19 (1) \$50,000,000 for fiscal year 2002; and

20 (2) such sums as are necessary for fiscal years  
21 2003 through 2006.

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

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

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

13 (c) ACTIVITIES TO BE INCLUDED.—The research  
14 shall include—

15 (1) modeling, analyses, tests, and experiments  
16 as required to provide input into total system behav-  
17 ior and response to hypothesized accidents; and

18 (2) consideration of new reactor technologies  
19 that may affect—

20 (A) risk-informed licensing of new plants;

21 (B) behavior of advanced fuels;

22 (C) evolving environmental considerations  
23 relative to spent fuel management and health  
24 effect standards;

25 (D) new technologies (such as advanced  
26 sensors, digital instrumentation, and control)



1           and human factors that affect the application of  
2           new technology to current plants; and

3           (E) other emerging technical issues.

4           (d) AUTHORIZATION OF APPROPRIATIONS.—There is  
5   authorized to be appropriated to carry out this section—

6           (1) \$25,000,000 for fiscal year 2002; and

7           (2) such sums as are necessary for subsequent  
8   fiscal years.

## 9           **TITLE III—EVALUATIONS OF** 10           **NUCLEAR ENERGY**

### 11   **SEC. 301. ENVIRONMENTALLY PREFERABLE PURCHASING.**

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

20           (b) PROCUREMENT.—No Federal procurement policy  
21   or program may—

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

1           (2) subscribe to product certification programs  
2           or recommend product purchases that exclude nu-  
3           clear electricity.

4 **SEC. 302. EMISSION-FREE CONTROL MEASURES UNDER A**  
5 **STATE IMPLEMENTATION PLAN.**

6           (a) DEFINITIONS.—In this section:

7           (1) CRITERIA AIR POLLUTANT.—The term “cri-  
8           teria air pollutant” means a pollutant listed under  
9           section 108(a) of the Clean Air Act (42 U.S.C.  
10          7408(a)).

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

13               (A) a facility that generates electricity  
14               without emitting criteria pollutants, hazardous  
15               pollutants, or greenhouse gases as a result of  
16               onsite operations of the facility; and

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

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

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

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

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

17      (b) TREATMENT OF CERTAIN STATE ACTIONS AS  
18      CONTROL MEASURES.—An action taken by a State to  
19      support the continued operation of an emission-free elec-  
20      tricity source or to support an improvement in availability  
21      or an increased emission-free capacity project shall be con-  
22      sidered to be a control measure for the purposes of section  
23      110(a) of the Clean Air Act (42 U.S.C. 7410(a)).

24      (c) ECONOMIC INCENTIVE PROGRAMS.—

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

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

17 **SEC. 303. PROHIBITION OF DISCRIMINATION AGAINST**  
 18 **EMISSION-FREE ELECTRICITY PROJECTS IN**  
 19 **INTERNATIONAL DEVELOPMENT PROGRAMS.**

20          (a) PROHIBITION.—No Federal funds shall be used  
 21          to support a domestic or international organization en-  
 22          gaged in the financing, development, insuring, or under-  
 23          writing of electricity production facilities if the activities  
 24          fail to include emission-free electricity production facility  
 25          projects that use nuclear fuel.

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

(1) the Agency for International Development;

(2) the World Bank;

(3) the Overseas Private Investment Corporation;

(4) the International Monetary Fund; and

(5) the Export-Import Bank.

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

### **SEC. 401. FINDINGS.**

Congress finds that—

(1) before the Federal Government takes any irreversible action relating to the disposal of spent nuclear fuel, Congress must determine whether the spent fuel should be treated as waste subject to permanent burial or should be considered to be an energy resource that is needed to meet future energy requirements; and

1           (2) national policy on spent nuclear fuel may  
2       evolve with time as improved technologies for spent  
3       fuel are developed or as national energy needs  
4       evolve.

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

6       (a) DEFINITIONS.—In this section:

7           (1) ASSOCIATE DIRECTOR.—The term “Asso-  
8       ciate Director” means the Associate Director of the  
9       Office.

10          (2) OFFICE.—The term “Office” means the Of-  
11       fice of Spent Nuclear Fuel Research established by  
12       subsection (b).

13       (b) ESTABLISHMENT.—There is established an Office  
14       of Spent Nuclear Fuel Research within the Office of Nu-  
15       clear Energy Science and Technology of the Department  
16       of Energy.

17       (c) HEAD OF OFFICE.—The Office shall be headed  
18       by the Associate Director, who shall be a member of the  
19       Senior Executive Service appointed by the Director of the  
20       Office of Nuclear Energy Science and Technology, and  
21       compensated at a rate determined by applicable law.

22       (d) DUTIES OF THE ASSOCIATE DIRECTOR.—

23           (1) IN GENERAL.—The Associate Director shall  
24       be responsible for carrying out an integrated re-  
25       search, development, and demonstration program on

1 technologies for treatment, recycling, and disposal of  
2 high-level nuclear radioactive waste and spent nu-  
3 clear fuel, subject to the general supervision of the  
4 Secretary.

5 (2) PARTICIPATION.—The Associate Director  
6 shall coordinate the participation of national labora-  
7 tories, universities, the commercial nuclear industry,  
8 and other organizations in the investigation of tech-  
9 nologies for the treatment, recycling, and disposal of  
10 spent nuclear fuel and high-level radioactive waste.

11 (3) ACTIVITIES.—The Associate Director  
12 shall—

13 (A) develop a research plan to provide rec-  
14 ommendations by 2015;

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

18 (C) conduct research and development ac-  
19 tivities for promising technologies;

20 (D) ensure that all activities include as key  
21 objectives minimization of proliferation concerns  
22 and risk to health of the general public or site  
23 workers, as well as development of cost-effective  
24 technologies;

1           (E) require research on both reactor- and  
2           accelerator-based transmutation systems;

3           (F) require research on advanced proc-  
4           essing and separations;

5           (G) include participation of international  
6           collaborators in research efforts, and provide  
7           funding to a collaborator that brings unique ca-  
8           pabilities not available in the United States if  
9           the country in which the collaborator is located  
10          is unable to provide support; and

11          (H) ensure that research efforts are co-  
12          ordinated with research on advanced fuel cycles  
13          and reactors conducted by the Office of Nuclear  
14          Energy Science and Technology.

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

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



1 **SEC. 403. ADVANCED FUEL RECYCLING TECHNOLOGY DE-**  
2 **VELOPMENT PROGRAM.**

3 (a) IN GENERAL.—The Secretary, acting through the  
4 Director of the Office of Nuclear Energy, Science, and  
5 Technology, shall conduct an advanced fuel recycling tech-  
6 nology research and development program to further the  
7 availability of electrometallurgical technology as a pro-  
8 liferation-resistant alternative to aqueous reprocessing in  
9 support of evaluation of alternative national strategies for  
10 spent nuclear fuel and the Generation IV advanced reactor  
11 concepts, subject to annual review by the Nuclear Energy  
12 Research Advisory Committee.

13 (b) REPORTS.—The Secretary shall submit to the  
14 Committee on Science and the Committee on Appropria-  
15 tions of the House of Representatives and the Committee  
16 on Energy and Natural Resources and the Committee on  
17 Appropriations of the Senate an annual report on the ac-  
18 tivities of the advanced fuel recycling technology develop-  
19 ment program.

20 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
21 are authorized to be appropriated to carry out this  
22 section—

- 23 (1) \$10,000,000 for fiscal year 2002; and  
24 (2) such sums as are necessary for fiscal years  
25 2003 through 2006.

## **TITLE V—NATIONAL ACCELERATOR SITE**

### **SEC. 501. FINDINGS.**

Congress finds that—

(1)(A) high-current proton accelerators are capable of producing significant quantities of neutrons through the spallation process without using a critical assembly; and

(B) the availability of high-neutron fluences enables a wide range of missions of major national importance to be conducted;

(2)(A) public acceptance of repositories, whether for spent fuel or for final waste products from spent fuel, can be enhanced if the radio-toxicity of the materials in the repository can be reduced;

(B) transmutation of long-lived radioactive species by an intense neutron source provides an approach to such a reduction in toxicity; and

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

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

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

4 (C) the importance of tritium supply is of suffi-  
5 cient magnitude that a backup technology should be  
6 demonstrated and available for rapid scale-up to full  
7 requirements;

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

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

14 (4)(A) radioisotopes are required in many med-  
15 ical procedures;

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

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

22 (5)(A) a spallation source provides a continuum  
23 of neutron energies; and

24 (B) the energy spectrum of neutrons can be al-  
25 tered and tailored to allow a wide range of experi-

1       ments in support of nuclear engineering studies of  
2       alternative reactor configurations, including studies  
3       of materials that may be used in future fission or fu-  
4       sion systems.

5   **SEC. 502. DEFINITIONS.**

6       In this title:

7           (1) OFFICE.—The term “Office” means the Of-  
8       fice of Nuclear Energy, Science, and Technology of  
9       the Department of Energy.

10          (2) PROGRAM.—The term “program” means  
11       the Advanced Accelerator Applications Program es-  
12       tablished under section 503.

13          (3) PROPOSAL.—The term “proposal” means  
14       the proposal for a location supporting the missions  
15       identified for the program developed under section  
16       503.

17   **SEC. 503. ADVANCED ACCELERATOR APPLICATIONS PRO-**  
18       **GRAM.**

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

22          (b) MISSION.—The mission of the program shall in-  
23       clude conducting scientific or engineering research, devel-  
24       opment, and demonstrations on—

- 1           (1) accelerator production of tritium as a  
2        backup technology;
- 3           (2) transmutation of spent nuclear fuel and  
4        waste;
- 5           (3) production of radioisotopes;
- 6           (4) advanced nuclear engineering concepts, in-  
7        cluding material science issues; and
- 8           (5) other applications that may be identified.

9       (c) ADMINISTRATION.—The program shall be admin-  
10   istered by the Office—

- 11           (1) in consultation with the National Nuclear  
12        Security Administration, for all activities related to  
13        tritium production; and
- 14           (2) in consultation with the Office of Civilian  
15        Radioactive Waste Management, for all activities re-  
16        lating to the impact of waste transmutation on re-  
17        pository requirements.

18       (d) PARTICIPATION.—The Office shall encourage par-  
19   ticipation of international collaborators, industrial part-  
20   ners, national laboratories, and, through support for new  
21   graduate engineering and science students and professors,  
22   universities.

23       (e) PROPOSAL OF LOCATION.—

1           (1) IN GENERAL.—The Office shall develop a  
2 detailed proposal for a location supporting the mis-  
3 sions identified for the program.

4           (2) CONTENTS.—The proposal shall—

5               (A) recommend capabilities for the accel-  
6 erator and for each major research or produc-  
7 tion effort;

8               (B) include development of a comprehen-  
9 sive site plan supporting those capabilities;

10              (C) specify a detailed time line for con-  
11 struction and operation of all activities;

12              (D) identify opportunities for involvement  
13 of the private sector in production and use of  
14 radioisotopes;

15              (E) contain a recommendation for funding  
16 required to accomplish the proposal in future  
17 fiscal years; and

18              (F) identify required site characteristics.

19           (3) PRELIMINARY ENVIRONMENTAL IMPACT AS-  
20 SESSMENT.—As part of the process of identification  
21 of required site characteristics, the Secretary shall  
22 undertake a preliminary environmental impact as-  
23 sessment of a range of sites.

24           (4) SUBMISSION TO CONGRESS.—Not later than  
25 March 31, 2002, the Secretary shall submit to the

1 Committee on Energy and Natural Resources and  
2 Committee on Appropriations of the Senate and the  
3 Committee on Science and Committee on Appropria-  
4 tions of the House of Representatives a report de-  
5 scribing the proposal.

6 (f) COMPETITION.—

7 (1) IN GENERAL.—The Secretary shall use the  
8 proposal to conduct a nationwide competition among  
9 potential sites.

10 (2) REPORT.—Not later than June 30, 2003,  
11 the Secretary shall submit to the Committee on En-  
12 ergy and Natural Resources and Committee on Ap-  
13 propriations of the Senate and the Committee on  
14 Science and the Committee on Appropriations of the  
15 House of Representatives a report that contains an  
16 evaluation of competing proposals and a rec-  
17 ommendation of a final site and for funding require-  
18 ments to proceed with construction in future fiscal  
19 years.

20 (g) AUTHORIZATION OF APPROPRIATIONS.—

21 (1) PROPOSAL.—There is authorized to be ap-  
22 propriated for development of the proposal  
23 \$20,000,000 for each of fiscal years 2002 and 2003.

24 (2) RESEARCH, DEVELOPMENT, AND DEM-  
25 ONSTRATION ACTIVITIES.—There are authorized to

1 be appropriated for research, development, and dem-  
 2 onstration activities of the program—

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

4 (B) such sums as are necessary for subse-  
 5 quent fiscal years.

6 **TITLE VI—NUCLEAR REGU-**  
 7 **LATORY COMMISSION RE-**  
 8 **FORM**

9 **SEC. 601. DEFINITIONS.**

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

12 (1) in subsection f., by striking “Atomic Energy  
 13 Commission” and inserting “Nuclear Regulatory  
 14 Commission”;

15 (2) by redesignating subsection jj. as subsection  
 16 ll.; and

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

18 “jj. FEDERAL NUCLEAR OBLIGATION.—The term  
 19 ‘Federal nuclear obligation’ means—

20 “(1) a nuclear decommissioning obligation;

21 “(2) a fee required to be paid to the Federal  
 22 Government by a licensee for the storage, transpor-  
 23 tation, or disposal of spent nuclear fuel and high-  
 24 level radioactive waste, including a fee required



1 under the Nuclear Waste Policy Act of 1982 (42  
2 U.S.C. 10101 et seq.); and

3 “(3) an assessment by the Federal Government  
4 to fund the cost of decontamination and decommis-  
5 sioning of uranium enrichment facilities, including  
6 an assessment required under chapter 28 of the En-  
7 ergy Policy Act of 1992 (42 U.S.C. 2297g).

8 “kk. NUCLEAR DECOMMISSIONING OBLIGATION.—  
9 The term ‘nuclear decommissioning obligation’ means an  
10 expense incurred to ensure the continued protection of the  
11 public from the dangers of any residual radioactivity or  
12 other hazards present at a facility at the time the facility  
13 is decommissioned, including all costs of actions required  
14 under rules, regulations and orders of the Commission  
15 for—

16 “(1) entombing, dismantling and decommis-  
17 sioning a facility; and

18 “(2) administrative, preparatory, security and  
19 radiation monitoring expenses associated with en-  
20 tombing, dismantling, and decommissioning a facil-  
21 ity.”.

22 **SEC. 602. OFFICE LOCATION.**

23 Section 23 of the Atomic Energy Act of 1954 (42  
24 U.S.C. 2033) is amended by striking “; however, the Com-

1 mission shall maintain an office for the service of process  
 2 and papers within the District of Columbia”.

3 **SEC. 603. LICENSE PERIOD.**

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

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

8 “c. LICENSE PERIOD.—

9 “(1) IN GENERAL.—Each such”; and

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

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

18 **SEC. 604. ELIMINATION OF FOREIGN OWNERSHIP RESTRIC-**  
 19 **TIONS.**

20 (a) COMMERCIAL LICENSES.—Section 103d. of the  
 21 Atomic Energy Act of 1954 (42 U.S.C. 2133(d)) is  
 22 amended by striking the second sentence.

23 (b) MEDICAL THERAPY AND RESEARCH AND DEVEL-  
 24 OPMENT.—Section 104d. of the Atomic Energy Act of

1 1954 (42 U.S.C. 2134(d)) is amended by striking the sec-  
 2 ond sentence.

3 **SEC. 605. ELIMINATION OF DUPLICATIVE ANTITRUST RE-**  
 4 **VIEW.**

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

8 “c. CONDITIONS.—

9 “(1) IN GENERAL.—A condition for a grant of  
 10 a license imposed by the Commission under this sec-  
 11 tion in effect on the date of enactment of the Nu-  
 12 clear Assets Restructuring Reform Act of 2001 shall  
 13 remain in effect until the condition is modified or re-  
 14 moved by the Commission.

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

22 “(A) is necessary to ensure compliance  
 23 with section 105a.; or

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

1 **SEC. 606. GIFT ACCEPTANCE AUTHORITY.**

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

4 (1) by inserting “(1)” after “(g)”;

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

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

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

12 (b) CRITERIA FOR ACCEPTANCE OF GIFTS.—

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

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

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

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

25 (2) CONFORMING AMENDMENT.—The table of  
26 contents of the Atomic Energy Act of 1954 (42

1 U.S.C. prec. 2011) is amended by adding at the end  
 2 of the items relating to chapter 14 the following:

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

3 **SEC. 607. AUTHORITY OVER FORMER LICENSEES FOR DE-**  
 4 **COMMISSIONING FUNDING.**

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

7 (1) by striking “and (3)” and inserting “(3)”;  
 8 and

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

18 **SEC. 608. CARRYING OF FIREARMS BY LICENSEE EMPLOY-**  
 19 **EES.**

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

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

1       “k. authorize to carry a firearm in the performance  
2 of official duties such of its members, officers, and employ-  
3 ees, such of the employees of its contractors and sub-  
4 contractors (at any tier) engaged in the protection of prop-  
5 erty under the jurisdiction of the United States located  
6 at facilities owned by or contracted to the United States  
7 or being transported to or from such facilities, and such  
8 of the employees of persons licensed or certified by the  
9 Commission (including employees of contractors of licens-  
10 ees or certificate holders) engaged in the protection of fa-  
11 cilities owned or operated by a Commission licensee or cer-  
12 tificate holder that are designated by the Commission or  
13 in the protection of property of significance to the common  
14 defense and security located at facilities owned or operated  
15 by a Commission licensee or certificate holder or being  
16 transported to or from such facilities, as the Commission  
17 considers necessary in the interest of the common defense  
18 and security;” and

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

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

21       “(a) AUTHORITY TO MAKE ARREST.—

22               “(1) IN GENERAL.—A person authorized under  
23 section 161k. to carry a firearm may, while in the  
24 performance of, and in connection with, official du-  
25 ties, arrest an individual without a warrant for any

1 offense against the United States committed in the  
2 presence of the person or for any felony under the  
3 laws of the United States if the person has a reason-  
4 able ground to believe that the individual has com-  
5 mitted or is committing such a felony.

6 “(2) LIMITATION.—An employee of a contractor  
7 or subcontractor or of a Commission licensee or cer-  
8 tificate holder (or a contractor of a licensee or cer-  
9 tificate holder) authorized to make an arrest under  
10 paragraph (1) may make an arrest only—

11 “(A) when the individual is within, or is in  
12 flight directly from, the area in which the of-  
13 fense was committed; and

14 “(B) in the enforcement of—

15 “(i) a law regarding the property of  
16 the United States in the custody of the De-  
17 partment of Energy, the Commission, or a  
18 contractor of the Department of Energy or  
19 Commission or a licensee or certificate  
20 holder of the Commission;

21 “(ii) a law applicable to facilities  
22 owned or operated by a Commission li-  
23 censee or certificate holder that are des-  
24 ignated by the Commission under section  
25 161k.;

1 “(iii) a law applicable to property of  
 2 significance to the common defense and se-  
 3 curity that is in the custody of a licensee  
 4 or certificate holder or a contractor of a li-  
 5 censee or certificate holder of the Commis-  
 6 sion; or

7 “(iv) any provision of this Act that  
 8 subjects an offender to a fine, imprison-  
 9 ment, or both.

10 “(3) OTHER AUTHORITY.—The arrest authority  
 11 conferred by this section is in addition to any arrest  
 12 authority under other law.

13 “(4) GUIDELINES.—The Secretary and the  
 14 Commission, with the approval of the Attorney Gen-  
 15 eral, shall issue guidelines to implement section  
 16 161k. and this subsection.”.

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 7(b)(2)) is amended by add-  
 20 ing at the end of the items relating to chapter 14 the fol-  
 21 lowing:

“Sec. 170D. Carrying of firearms.”.

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

23 Section 161w. of the Atomic Energy Act of 1954 (42  
 24 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 189a.(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  
17 section shall be conducted using informal adju-  
18 dicatory procedures established under sections  
19 553 and 555 of title 5, United States Code, un-  
20 less the Commission determines that formal ad-  
21 judicatory procedures are necessary—

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

23 “(ii) to achieve fairness.”.

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

3 Section 229a. 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 236a. 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) DEFINITION OF FACILITY.—In this section, the  
 19 term ‘facility’ means a commercial nuclear electric gener-  
 20 ating facility for which a Federal nuclear obligation is in-  
 21 curred.

22       “(b) DECOMMISSIONING OBLIGATIONS.—After public  
 23 notice and in accordance with section 181, the Commis-  
 24 sion shall establish by rule, regulation, or order any re-  
 25 quirement that the Commission considers necessary to en-

1 sure that a person that is not a licensee (including a  
2 former licensee) complies fully with any nuclear decommis-  
3 sioning obligation.”.

4 (b) CONFORMING AMENDMENT.—The table of con-  
5 tents of the Atomic Energy Act of 1954 (42 U.S.C. prec.  
6 2011) is amended by inserting after the item relating to  
7 section 241 the following:

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

8 **SEC. 614. EFFECTIVE DATE.**

9 (a) IN GENERAL.—Except as provided in subsection  
10 (b), this title and the amendments made by this title take  
11 effect on the date of enactment of this Act.

12 (b) RECOMMISSIONING AND LICENSE REMOVAL.—  
13 The amendment made by section 613 takes effect on the  
14 date that is 180 days after the date of enactment of this  
15 Act.

○