

**CHAIRMAN’S MARK  
APRIL 8, 2003**

**TITLE IV— NUCLEAR MATTERS**

**Subtitle A—Price-Anderson Act Amendments**

1 **SEC. 401. SHORT TITLE.**

2 This subtitle may be cited as the “Price-Anderson Amendments Act of 2003”.

3 **SEC. 402. EXTENSION OF INDEMNIFICATION AUTHORITY.**

4 (a) INDEMNIFICATION OF NUCLEAR REGULATORY COMMISSION

5 LICENSEES.—Section 170c. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(c)) is amended—

6 (1) in the subsection heading, by striking “LICENSES” and inserting “LICENSEES”;

7 (2) by striking “licenses issued between August 30, 1954, and December 31, 2003”  
8 and inserting “licenses issued after August 30, 1954”; and

9 (3) by striking “With respect to any production or utilization facility for which a  
10 construction permit is issued between August 30, 1954, and December 31, 2003, the  
11 requirements of this subsection shall apply to any license issued for such facility subsequent to  
12 December 31, 2003.”

13 (b) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170d.(1)(A) of  
14 the Atomic Energy Act of 1954 (42 U.S.C. 2210(d)(1)(A)) is amended by striking “, until December  
15 31, 2004,”.

16 (c) INDEMNIFICATION OF NONPROFIT EDUCATIONAL INSTITUTIONS.—Section 170k.of the  
17 Atomic Energy Act of 1954 (42 U.S.C. 2210(k)) is amended—

18 (1) by striking “licenses issued between August 30,1954, and August 1, 2002” and  
19 replacing it with “licenses issued after August 30, 1954”; and

20 (2) by striking “With respect to any production or utilization facility for which a  
21 construction permit is issued between August 30, 1954, and August 1, 2002, the requirements  
22 of this subsection shall apply to any license issued for such facility subsequent to August 1,  
23 2002.”

1 **SEC. 403. MAXIMUM ASSESSMENT.**

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

3 (1) in the second proviso of the third sentence of subsection b.(1)—

4 (A) by striking “\$63,000,000” and inserting “\$94,000,000”; and

5 (B) by striking “\$10,000,000 in any 1 year” and inserting “\$15,000,000 in any  
6 1 year (subject to adjustment for inflation under subsection t.)”; and

7 (2) in subsection t.(1)—

8 (A) by inserting “total and annual” after “amount of the maximum”;

9 (B) by striking “the date of the enactment of the Price-Anderson Amendments  
10 Act of 1988” and inserting “July 1, 2003”; and

11 (C) by striking “such date of enactment” and inserting “July 1, 2003”.

12 **SEC. 404. DEPARTMENT OF ENERGY LIABILITY LIMIT.**

13 (a) INDEMNIFICATION OF DEPARTMENT OF ENERGY CONTRACTORS.—Section 170d. of the  
14 Atomic Energy Act of 1954 (42 U.S.C. 2210(d)) is amended by striking paragraph (2) and inserting  
15 the following:

16 “(2) In an agreement of indemnification entered into under paragraph (1), the  
17 Secretary—

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

21 “(B) shall indemnify the persons indemnified against such liability above the  
22 amount of the financial protection required, in the amount of \$10,000,000,000 (subject  
23 to adjustment for inflation under subsection t.), in the aggregate, for all persons  
24 indemnified in connection with the contract and for each nuclear incident, including such  
25 legal costs of the contractor as are approved by the Secretary.”

26 (b) CONTRACT AMENDMENTS.—Section 170d. of the Atomic Energy Act of 1954 (42 U.S.C.  
27 2210(d)) is further amended by striking paragraph (3) and inserting the following—

28 “(3) All agreements of indemnification under which the Department of Energy (or its

1 predecessor agencies) may be required to indemnify any person under this section shall be  
2 deemed to be amended, on the date of enactment of the Price-Anderson Amendments Act of  
3 2003, to reflect the amount of indemnity for public liability and any applicable financial  
4 protection required of the contractor under this subsection.”.

5 (c) LIABILITY LIMIT.—Section 170e.(1)(B) of the Atomic Energy Act of 1954 (42 U.S.C.  
6 2210(e)(1)(B)) is amended by:

7 (1) striking “the maximum amount of financial protection required under subsection b.  
8 or”; and

9 (2) striking “paragraph (3) of subsection d., whichever amount is more” and inserting  
10 “paragraph (2) of subsection d.”.

11 **SEC. 405. INCIDENTS OUTSIDE THE UNITED STATES.**

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

14 (b) LIABILITY LIMIT.—Section 170e.(4) of the Atomic Energy Act of 1954 (42 U.S.C.  
15 2210(e)(4)) is amended by striking “\$100,000,000” and inserting “\$500,000,000”.

16 **SEC. 406. REPORTS.**

17 Section 170p. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(p)) is amended by striking  
18 “August 1, 1998” and inserting “August 1, 2013”.

19 **SEC. 407. INFLATION ADJUSTMENT.**

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

21 (1) by redesignating paragraph (2) as paragraph (3); and

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

23 “(2) The Secretary shall adjust the amount of indemnification provided under an agreement of  
24 indemnification under subsection d. not less than once during each 5-year period following July 1,  
25 2003, in accordance with the aggregate percentage change in the Consumer Price Index since—

26 “(A) that date, in the case of the first adjustment under this paragraph; or

27 “(B) the previous adjustment under this paragraph.”.

28 **SEC. 408. TREATMENT OF MODULAR REACTORS.**

1 Section 170 b. of the Atomic Energy Act of 1954 (42 U.S.C. 2210(b)) is amended by adding  
2 at the end the following:

3 “(5)(A) For purposes of this section only, the Commission shall consider a combination of  
4 facilities described in subparagraph (B) to be a single facility having a rated capacity of 100,000  
5 electrical kilowatts or more.

6 “(B) A combination of facilities referred to in subparagraph (A) is 2 or more facilities located at  
7 a single site, each of which has a rated capacity of 100,000 electrical kilowatts or more but not more  
8 than 300,000 electrical kilowatts, with a combined rated capacity of not more than 1,300,000  
9 electrical kilowatts.”.

10 **SEC. 409. APPLICABILITY.**

11 The amendments made by sections 403, 404, and 405 do not apply to a nuclear incident that  
12 occurs before the date of the enactment of this Act.

13 **SEC. 410. CIVIL PENALTIES.**

14 (a) **REPEAL OF AUTOMATIC REMISSION.**—Section 234Ab.(2) of the Atomic Energy Act of  
15 1954 (42 U.S.C. 2282a(b)(2)) is amended by striking the last sentence.

16 (b) **LIMITATION FOR NOT-FOR-PROFIT INSTITUTIONS.**—Subsection d. of section 234A of the  
17 Atomic Energy Act of 1954 (42 U.S.C. 2282a(d)) is amended to read as follows:

18 “d.(1) Notwithstanding subsection a., in the case of any not-for-profit contractor,  
19 subcontractor, or supplier, the total amount of civil penalties paid under subsection a. may not exceed  
20 the total amount of fees paid within any one-year period (as determined by the Secretary) under the  
21 contract under which the violation occurs.

22 “(2) For purposes of this section, the term “not-for-profit” means that no part of the net  
23 earnings of the contractor, subcontractor, or supplier inures to the benefit of any natural person or  
24 for-profit artificial person.”.

25 (c) **EFFECTIVE DATE.**—The amendments made by this section shall not apply to any violation  
26 of the Atomic Energy Act of 1954 occurring under a contract entered into before the date of enactment  
27 of this section.

28 **Subtitle B—Deployment of New Nuclear Plants**

1     **SEC. 421. SHORT TITLE.**

2             This subtitle may be cited as the “Nuclear Energy Finance Act of 2003.”

3     **SEC. 422. DEFINITIONS.**

4             For purposes of this subtitle:

5             (a) The term “advanced reactor design” means a nuclear reactor that enhances safety,  
6 efficiency, proliferation resistance, or waste reduction compared to commercial nuclear reactors in use  
7 in the United States on the date of enactment of this Act.

8             (b) The term “eligible project costs” means all costs incurred by a project developer that are  
9 reasonably related to the development and construction of a project under this subtitle, including costs  
10 resulting from regulatory or licensing delays.

11            (c) The term “financial assistance” means a loan guarantee, purchase agreement, or any  
12 combination of the foregoing.

13            (d) The term “loan guarantee” means any guarantee or other pledge by the Secretary to pay all  
14 or part of the principal and interest on a loan or other debt obligation issued by a project developer and  
15 funded by a lender.

16            (e) The term “project” means any commercial nuclear power facility for the production of  
17 electricity that uses one or more advanced reactor designs.

18            (f) The term “project developer” means an individual, corporation, partnership, joint venture,  
19 trust, or other entity that is primarily liable for payment of a project’s eligible costs.

20            (g) The term “purchase agreement” means a contract to purchase the electric energy produced  
21 by a project under this subtitle.

22            (h) The term “Secretary” means the Secretary of Energy.

23     **SEC. 423. RESPONSIBILITIES OF THE SECRETARY.**

24            (a) **FINANCIAL ASSISTANCE.**— Subject to the requirements of the Federal Credit Reform Act  
25 of 1990 (2 U.S.C. 661 et seq.), the Secretary may, subject to appropriations, make available to  
26 project developers for eligible project costs such financial assistance as the Secretary determines is  
27 necessary to supplement private-sector financing for projects if he determines that such projects are  
28 needed to contribute to energy security, fuel or technology diversity, or clean air attainment goals. The

1 Secretary shall prescribe such terms and conditions for financial assistance as the Secretary deems  
2 necessary or appropriate to protect the financial interests of the United States.

3 (b) REQUIREMENTS.—Approval criteria for financial assistance shall include—

4 (1) the creditworthiness of the project;

5 (2) the extent to which financial assistance would encourage public-private partnerships  
6 and attract private-sector investment;

7 (3) the likelihood that financial assistance would hasten commencement of the project;  
8 and,

9 (4) any other criteria the Secretary deems necessary or appropriate.

10 (c) CONFIDENTIALITY.—The Secretary shall protect the confidentiality of any information that  
11 is certified by a project developer to be commercially sensitive.

12 (d) FULL FAITH AND CREDIT.—All financial assistance provided by the Secretary under this  
13 subtitle shall be general obligations of the United States backed by its full faith and credit.

#### 14 SEC. 424. LIMITATIONS

15 (a) FINANCIAL ASSISTANCE.—The total financial assistance per project provided by this  
16 subtitle shall not exceed fifty percent of eligible project costs.

17 (b) GENERATION.—The total electrical generation capacity of all projects provided by this  
18 subtitle shall not exceed 8,400 megawatts.

#### 19 SEC. 425. REGULATIONS

20 Not later than 12 months from the date of enactment of this Act, the Secretary shall issue  
21 regulations to implement this subtitle.

## 22 **Subtitle C—Advanced Reactor Hydrogen** 23 **Co-Generation Project**

#### 24 SEC. 431. PROJECT ESTABLISHMENT.

25 The Secretary is directed to establish an Advanced Reactor Hydrogen Co-Generation Project.

#### 26 SEC. 432. PROJECT DEFINITION.

27 The project shall conduct the research, development, design, construction, and operation of a  
28 hydrogen production co-generation testbed that, relative to the current commercial reactors, enhances

1 safety features, reduces waste production, enhances thermal efficiencies, increases proliferation  
2 resistance, and has the potential for improved economics and physical security in reactor siting. This  
3 testbed shall be constructed so as to enable research and development on advanced reactors of the  
4 type selected and on alternative approaches for reactor-based production of hydrogen.

5 **SEC. 433. PROJECT MANAGEMENT.**

6 (a) **MANAGEMENT.**— The project shall be managed within the Department by the Office of  
7 Nuclear Energy Science and Technology.

8 (b) **LEAD LABORATORY.**—The lead laboratory for the program, providing the site for the  
9 reactor construction, shall be the Idaho National Engineering and Environmental Laboratory  
10 (“INEEL”).

11 (c) **STEERING COMMITTEE.**—The Secretary shall establish a national steering committee with  
12 membership from the national laboratories, universities, and industry to provide advice to the Secretary  
13 and the Director of the Office of Nuclear Energy, Science and Technology on technical and program  
14 management aspects of the project.

15 (d) **COLLABORATION.**—Project activities shall be conducted at INEEL, other national  
16 laboratories, universities, domestic industry, and international partners.

17 **SEC. 434. PROJECT REQUIREMENTS**

18 (a) **RESEARCH AND DEVELOPMENT.**—The project shall include planning, research and  
19 development, design, and construction of an advanced, next-generation, nuclear energy system suitable  
20 for enabling further research and development on advanced reactor technologies and alternative  
21 approaches for reactor-based generation of hydrogen.

22 (1) The project shall utilize, where appropriate, extensive reactor test capabilities  
23 resident at INEEL.

24 (2) The project shall be designed to explore technical, environmental, and  
25 economic feasibility of alternative approaches for reactor-based hydrogen production.

26 (3) The industrial lead for the project must be a United States-based company.

27 (b) **INTERNATIONAL COLLABORATION.**—The Secretary shall seek international cooperation,  
28 participation, and financial contribution in this program.

1 (1) The project may contract for assistance from specialists or facilities from member  
2 countries of the Generation IV International Forum, the Russian Federation, or other  
3 international partners where such specialists or facilities provide access to cost-effective and  
4 relevant skills or test capabilities.

5 (2) International activities shall be coordinated with the Generation IV  
6 International Forum.

7 (3) The Secretary may combine this project with the Generation IV Nuclear  
8 Energy Systems Program.

9 (c) DEMONSTRATION.—The overall project, which may involve demonstration of selected  
10 project objectives in a partner nation, must demonstrate both electricity and hydrogen production and  
11 may provide flexibility, where technically and economically feasible in the design and construction, to  
12 enable tests of alternative reactor core and cooling configurations.

13 (d) PARTNERSHIPS.—The Secretary shall establish cost-shared partnerships with domestic  
14 industry or international participants for the research, development, design, construction and operation  
15 of the demonstration facility, and preference in determining the final project structure shall be given to an  
16 overall project which retains United States leadership while maximizing cost sharing opportunities and  
17 minimizing federal funding responsibilities.

18 (e) TARGET DATE.—The Secretary shall select technologies and develop the project to provide  
19 initial testing of either hydrogen production or electricity generation by 2010 or provide a report to  
20 Congress why this date is not feasible.

21 (f) WAIVER OF CONSTRUCTION TIMELINES.—The Secretary is authorized to conduct the  
22 Advanced Reactor Hydrogen Co-Generation Project without the constraints of DOE Order 413.3 as  
23 deemed necessary to meet the specified operational date.

24 (g) COMPETITION.—The Secretary may fund up to two teams for up to one year to develop  
25 detailed proposals for competitive evaluation and selection of a single proposal and concept for further  
26 progress. The Secretary shall define the format of the competitive evaluation of proposals.

27 (h) USE OF FACILITIES.—Research facilities in industry, national laboratories, or universities  
28 either within the United States or with cooperating international partners may be used to develop the

1 enabling technologies for the demonstration facility. Utilization of domestic university-based testbeds  
2 shall be encouraged to provide educational opportunities for student development.

3 (i) **ROLE OF NUCLEAR REGULATORY COMMISSION.**—The Secretary shall seek active  
4 participation of the Nuclear Regulatory Commission throughout the project to develop risk-based  
5 criteria for any future commercial development of a similar reactor architecture.

6 (j) **REPORT.**—A comprehensive project plan shall be developed no later than April 30, 2004.  
7 The project plan shall be updated annually with each annual budget submission.

#### 8 **SEC. 435. AUTHORIZATION OF APPROPRIATIONS.**

9 (a) **RESEARCH, DEVELOPMENT AND DESIGN PROGRAMS.**— The following sums are authorized  
10 to be appropriated to the Secretary for all activities under this subtitle except for reactor construction:

11 (1) For fiscal year 2004, \$35,000,000;

12 (2) For each of fiscal years 2005-2008, \$150,000,000; and

13 (3) For fiscal years beyond 2008, such funds as are needed are authorized to be  
14 appropriated.

15 (b) **REACTOR CONSTRUCTION.**—The following sum is authorized to be appropriated to the  
16 Secretary for all project-related construction activities, to be available until expended, \$500,000,000.

## 17 **Subtitle D—Miscellaneous Matters**

#### 18 **SEC. 441. URANIUM SALES AND TRANSFERS.**

19 Section 3112 of the USEC Privatization Act (42 U.S.C. 2297h-10) is amended by striking  
20 subsections (d) and (e) and inserting the following:

21 “(d)(1)(A) The aggregate annual deliveries of uranium in any form (including natural uranium  
22 concentrates, natural uranium hexafluoride, enriched uranium, and depleted uranium) sold or transferred  
23 for commercial nuclear power end uses by the United States Government shall not exceed 3,000,000  
24 pounds U<sub>3</sub>O<sub>8</sub> equivalent per year through calendar year 2009. Such aggregate annual deliveries shall  
25 not exceed 5,000,000 pounds U<sub>3</sub>O<sub>8</sub> equivalent per year in calendar years 2010 and 2011. Such  
26 aggregate annual deliveries shall not exceed 7,000,000 pounds U<sub>3</sub>O<sub>8</sub> equivalent in calendar year 2012.  
27 Such aggregate annual deliveries shall not exceed 10,000,000 pounds U<sub>3</sub>O<sub>8</sub> equivalent per year in  
28 calendar year 2013 and each year thereafter. Any sales or transfers by the United States Government

1 to commercial end users shall be limited to long-term contracts of no less than 3 years duration.

2 “(B) The recovery and extraction of the uranium component from contaminated uranium  
3 bearing materials from United States Government sites by commercial entities shall be the preferred  
4 method of making uranium available under this subsection. The uranium component contained in such  
5 contaminated materials shall be counted against the annual maximum deliveries set forth in this section,  
6 provided that uranium is sold to end users.

7 “(C) Sales or transfers of uranium by the United States Government for the following purposes  
8 are exempt from the provisions of this subsection—

9 “(i) sales or transfers provided for under existing law for use by the Tennessee Valley  
10 Authority in relation to the Department of Energy's high-enriched uranium or tritium programs;

11 “(ii) sales or transfers to the Department of Energy research reactor sales program;

12 “(iii) the transfer of up to 3,293 metric tons of uranium to the United States Enrichment  
13 Corporation to replace uranium that the Secretary transferred, prior to privatization of the  
14 United States Enrichment Corporation in July 1998, to the Corporation on or about June 30,  
15 1993, April 20, 1998, and May 18, 1998, and that does not meet commercial specifications;

16 “(iv) the sale or transfer of any uranium for emergency purposes in the event of a  
17 disruption in supply to end users in the United States;

18 “(v) the sale or transfer of any uranium in fulfillment of the United States Government's  
19 obligations to provide security of supply with respect to implementation of the Russian HEU  
20 Agreement; and

21 “(vi) the sale or transfer of any enriched uranium for use in an advanced commercial  
22 nuclear power plant in the United States with nonstandard fuel requirements.

23 “(D) The Secretary may transfer or sell enriched uranium to any person for national security  
24 purposes, as determined by the Secretary.

25 “(2) Except as provided in subsections (b) and (c), and in paragraph (1)(B) and (C) of this  
26 subsection, no sale or transfer of uranium in any form shall be made by the United States Government  
27 unless—

28 “(A) the President determines that the material is not necessary for national security

1 needs;

2 “(B) the price paid to the Secretary will not be less than the fair market value of the  
3 material, as determined at the time that such material is contracted for sale;

4 “(C) prior to any sale or transfer, the Secretary solicits the written views of the  
5 Department of State and the National Security Council with regard to whether such sale or  
6 transfer would have any adverse effect on national security interests of the United States,  
7 including interests related to the implementation of the Russian HEU Agreement; and

8 “(D) neither the Department of State nor the National Security Council objects to such  
9 sale or transfer.

10 The Secretary shall endeavor to determine whether a sale or transfer is permitted under this paragraph  
11 within 30 days. The Secretary’s determinations pursuant to this paragraph shall be made available to  
12 interested members of the public prior to authorizing any such sale or transfer.

13 “(3) Within 1 year after the date of enactment of this subsection and annually thereafter the  
14 Secretary shall undertake an assessment for the purpose of reviewing available excess Government  
15 uranium inventories, and determining, consistent with the procedures and limitations established in this  
16 subsection, the level of inventory to be sold or transferred to end users.

17 “(4) Within 5 years after the date of enactment of this subsection and biennially thereafter the  
18 Secretary shall report to the Congress on the implementation of this subsection. The report shall include  
19 a discussion of all sales or transfers made by the United States Government, the impact of such sales or  
20 transfers on the domestic uranium industry, the spot market uranium price, and the national security  
21 interests of the United States, and any steps taken to remediate any adverse impacts of such sales or  
22 transfers.

23 “(5) For purposes of this subsection, the term ‘United States Government’ does not include the  
24 Tennessee Valley Authority.”.

25 **SEC. 442. DECOMMISSIONING PILOT PROGRAM.**

26 (a) PILOT PROGRAM.—The Secretary shall establish a decommissioning pilot program to  
27 decommission and decontaminate the sodium-cooled fast breeder experimental test-site reactor located  
28 in northwest Arkansas in accordance with the decommissioning activities contained in the August 31,

1 1998 Department of Energy report on the reactor.

2 (b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry  
3 out this section \$16,000,000.