REDLINE OF CHAIRMAN'S MARK

TITLE IV— NUCLEAR MATTERS

Subtitle A–Price-Anderson Act Amendments

SEC. 401. SHORT TITLE.

This subtitle may be cited as the "Price-Anderson Amendments Act of 2003".

SEC. 402. EXTENSION OF INDEMNIFICATION AUTHORITY.

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

(1) in the subsection heading, by striking "LICENSES" and inserting "LICENSEES";

(2) by striking "licenses issued between August 30, 1954, and December 31, 2003" and inserting "licenses issued after August 30, 1954"; and

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

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

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

(1) by striking "licenses issued between August 30,1954, and August 1, 2002" and replacing it with "licenses issued after August 30, 1954"; and

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

SEC. 403. MAXIMUM ASSESSMENT.

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

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

(A) by striking "$63,000,000" and inserting "$94,000,000"; and

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

(2) in subsection t.(1)—

(A) by inserting "total and annual" after "amount of the maximum";

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

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

SEC. 404. DEPARTMENT OF ENERGY LIABILITY LIMIT.

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

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

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

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

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

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

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

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

(1) striking "the maximum amount of financial protection required under subsection b. or"; and

(2) striking "paragraph (3) of subsection d., whichever amount is more" and inserting "paragraph (2) of subsection d.".

SEC. 405. INCIDENTS OUTSIDE THE UNITED STATES.

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

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

SEC. 406. REPORTS.

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

SEC. 407. INFLATION ADJUSTMENT.

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

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

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

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

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

"(B) the previous adjustment under this paragraph.".

SEC. 408. TREATMENT OF MODULAR REACTORS.

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

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

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

SEC. 409. APPLICABILITY.

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

SEC. 410. CIVIL PENALTIES.

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

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

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

"(2) For purposes of this section, the term "not-for-profit" means that no part of the net earnings of the contractor, subcontractor, or supplier inures~~, or may lawfully inure,~~ to the benefit of any natural person or for-profit artificial person.".

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

Subtitle B—Deployment of New Nuclear Plants

SEC. 421. SHORT TITLE.

This subtitle may be cited as the "Nuclear Energy Finance Act of 2003."

SEC. 422. DEFINITIONS.

For purposes of this subtitle:

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

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

~~(b)~~ *(c)* The term "financial assistance" means a ~~line of credit,~~ loan guarantee, purchase agreement~~, secured loan~~, or any combination of the foregoing.

~~(c) The term "line of credit" means an agreement by the Secretary to provide a direct loan to a project developer at a future date upon the occurrence of certain events designated in the agreement.~~

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

(e)The term "project" means any commercial nuclear power facility ~~using uranium or mixed oxide fuel as a source of heat~~ for the production of electricity ~~from a single reactor, or multiple modular reactors with total electricity generation capacity at or below 1,300,000 kilowatts.~~ *that uses one or more advanced reactor designs.*

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

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

(h) The term "Secretary" means the Secretary of Energy.

~~(i) The term "secured loan" means a direct loan or other debt obligation funded by the Secretary with repayment secured by the value of a project developed under this subtitle.~~

SEC. 423. RESPONSIBILITIES OF THE SECRETARY.

(a) FINANCIAL ASSISTANCE.~~—The~~— *Subject to the requirements of the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.), the* Secretary may, ~~in accordance with this subtitle~~ *subject to appropriations*, make available to project developers for eligible project costs such financial assistance as the Secretary determines is necessary to supplement private-sector financing for ~~new nuclear power plants~~ *projects* if he determines that such ~~plants~~ *projects* are needed to contribute to energy security, fuel ~~and~~*or* technology diversity, or clean air attainment goals. The Secretary shall prescribe such terms and conditions for financial assistance as the Secretary deems necessary or appropriate to protect the *financial* interests of the United States.

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

(1) the creditworthiness of the project;

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

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

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

~~(c) LIMITATION.—The total financial assistance per project provided by this subtitle shall not exceed fifty percent of eligible project costs.~~

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

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

SEC. 424. LIMITATIONS

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

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

SEC. ~~424~~ *425*. REGULATIONS

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

Subtitle C—Advanced Reactor Hydrogen Co-Generation Project

SEC. 431. PROJECT ESTABLISHMENT.

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

SEC. 432. PROJECT DEFINITION.

The project shall conduct the research, development, design, construction, and operation of a hydrogen production co-generation ~~system~~ *testbed* that, relative to the current commercial reactors, enhances safety features, reduces waste production, enhances thermal efficiencies, increases proliferation resistance, and has the potential for improved economics and physical security in reactor siting. *This testbed shall be constructed so as to enable research and development on advanced reactors of the type selected and on alternative approaches for reactor-based production of hydrogen.*

SEC. 433. PROJECT MANAGEMENT.

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

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

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

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

SEC. 434. PROJECT REQUIREMENTS

(a) *RESEARCH AND DEVELOPMENT.*—The project shall include planning, research and development, design, and construction of an advanced, next-generation, nuclear energy system ~~for the~~

~~co-generation of electricity and hydrogen~~ *suitable for enabling further research and development on advanced reactor technologies and alternative approaches for reactor-based generation of hydrogen.*

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

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

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

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

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

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

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

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

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

(e) *TARGET DATE.*—The Secretary shall select technologies and develop the project to provide

initial testing of either hydrogen production or electricity generation by 2010 or provide a report to Congress why this date is not feasible.

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

(g) *COMPETITION*.—The Secretary may fund up to two teams for up to one year to develop detailed proposals for competitive evaluation and selection of a single proposal and concept for further progress. The Secretary shall define the format of the competitive evaluation of proposals.- (h) *USE OF FACILITIES*.—Research facilities in industry, national laboratories, or universities either within the United States or with cooperating international partners may be used to develop the enabling technologies for the demonstration facility. Utilization of domestic university-based testbeds shall be encouraged to provide educational opportunities for student development.

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

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

SEC. 435. AUTHORIZATION OF APPROPRIATIONS.

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

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

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

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

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

Subtitle D—Miscellaneous Matters

~~SEC. 441. EMISSION-FREE CONTROL MEASURES UNDER A STATE IMPLEMENTATION PLAN.~~

~~(a) DEFINITIONS.—In this subtitle—~~

~~(1) the term "criteria air pollutant" means a pollutant listed under section 108(a) of the clean air act (42 u.s.c. 7408(a)).~~

~~(2) the term "emission-free electricity source" means—~~

~~(A) a facility that generates electricity without emitting criteria pollutants as a result of onsite operations of the facility; and~~

~~(B) a facility that generates electricity using nuclear fuel that meets all applicable standards for radiological emissions under section 112 of the clean air act (42 u.s.c. 7412).~~

~~(3) the term "hazardous pollutant" has the meaning given the term in section 112(a) of the clean air act (42 u.s.c. 7412(a)).~~

~~(4) the term "improvement in availability" means an increase in the amount of electricity produced by an emission-free electricity source that provides, or has the potential to provide, a commensurate reduction in output from emitting sources.~~

~~(5) The term "increased emission-free capacity project" means a project to construct an emission-free electricity source or increase the rated capacity of an existing emission-free electricity source.~~

~~(b) Treatment of Certain State Actions as Control Measures.—An action taken by a State to support the continued operation of an emission-free electricity source or to support an improvement in availability or an increased emission-free capacity project shall be considered to be a control measure for the purposes of section 110(a) of the Clean Air Act (42 U.S.C. 7410(a)).~~ ~~(c) Economic Incentive Programs.—Emissions of criteria air pollutants or hazardous pollutants prevented or avoided by an improvement in availability or the operation of increased emission-free capacity shall be eligible for, and may not be excluded from, incentive programs used as control measures, including programs authorizing emission trades, revolving loan funds, tax benefits, and special financing programs.~~

SEC. ~~442.~~ *441*. URANIUM SALES AND TRANSFERS.

Section 3112 of the USEC Privatization Act (42 U.S.C. 2297h-10) is amended by striking

subsections (d) and (e) and inserting the following:

"(d)(1)(A) The aggregate annual deliveries of uranium in any form (including natural uranium concentrates, natural uranium hexafluoride, enriched uranium, and depleted uranium) sold or transferred for commercial nuclear power end uses by the United States Government shall not exceed 3,000,000 pounds U_3O_8 equivalent per year through calendar year 2009. Such aggregate annual deliveries shall not exceed 5,000,000 pounds U_3O_8 equivalent per year in calendar years 2010 and 2011. Such aggregate annual deliveries shall not exceed 7,000,000 pounds U_3O_8 equivalent in calendar year 2012. Such aggregate annual deliveries shall not exceed 10,000,000 pounds U_3O_8 equivalent per year in calendar year 2013 and each year thereafter. Any sales or transfers by the United States Government to commercial end users shall be limited to long-term contracts of no less than 3 years duration.

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

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

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

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

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

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

"(v) the sale or transfer of any ~~natural~~ uranium in fulfillment of the United States Government's obligations to provide security of supply with respect to implementation of the

Russian HEU Agreement; and

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

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

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

"(A) the President determines that the material is not necessary for national security needs;

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

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

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

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

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

"(4) Within 5 years after the date of enactment of this subsection and biennially thereafter the Secretary shall report to the Congress on the implementation of this subsection. The report shall include a discussion of all sales or transfers made by the United States Government, the impact of such sales or

transfers on the domestic uranium industry, the spot market uranium price, and the national security interests of the United States, and any steps taken to remediate any adverse impacts of such sales or transfers.

"(5) For purposes of this subsection, the term 'United States Government' does not include the Tennessee Valley Authority.".

SEC. 442. DECOMMISSIONING PILOT PROGRAM.

(a) PILOT PROGRAM.—The Secretary shall establish a decommissioning pilot program to decommission and decontaminate the sodium-cooled fast breeder experimental test-site reactor located in northwest Arkansas in accordance with the decommissioning activities contained in the August 31, 1998 Department of Energy report on the reactor.

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