

education, Federal agencies, including national laboratories, and professional and technical societies, shall prepare and submit to the Congress a 5-year program plan to guide the activities under this section. Such plan shall be included as part of the plan required by section 13431(b) of this title.

(d) Solicitation of proposals

Within 1 year after October 24, 1992, the Secretary shall solicit proposals for conducting activities consistent with the 5-year program plan. (Pub. L. 102-486, title XX, §2027, Oct. 24, 1992, 106 Stat. 3066.)

§ 13438. Telecommuting study

(a) Study

The Secretary, in consultation with the Secretary of Transportation, shall conduct a study of the potential costs and benefits to the energy and transportation sectors of telecommuting. The study shall include—

- (1) an estimation of the amount and type of reduction of commuting by form of transportation type and numbers of commuters;
- (2) an estimation of the potential number of lives saved;
- (3) an estimation of the reduction in environmental pollution, in consultation with the Environmental Protection Agency;
- (4) an estimation of the amount and type of reduction of energy use and savings by form of transportation type; and
- (5) an estimation of the social impact of widespread use of telecommuting.

(b) Report to Congress

This study shall be completed no more than one hundred and eighty days after October 24, 1992. A report, summarizing the results of the study, shall be transmitted to the United States House of Representatives and the Committee on Energy and Natural Resources of the United States Senate no more than sixty days after completion of this study.

(Pub. L. 102-486, title XX, §2028, Oct. 24, 1992, 106 Stat. 3067.)

SUBCHAPTER IX—ENERGY AND ENVIRONMENT

PART A—IMPROVED ENERGY EFFICIENCY

§ 13451. General improved energy efficiency

(a) Program direction

The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, on cost effective technologies to improve energy efficiency and increase the use of renewable energy in the buildings, industrial, and utility sectors. Such program shall include a broad range of technological approaches, and shall include field demonstrations of sufficient scale and number to prove technical and economic viability to meet the goals stated in section 13401 of this title. Such program shall include the activities required under sections 13452, 13453, 13454, 13455, 13456, and 13457 of this title and section 2106¹ and ongoing activities of

a similar nature at the Department of Energy. Such program shall also include the activities conducted pursuant to the Steel and Aluminum Energy Conservation and Technology Competitiveness Act of 1988 (Public Law 100-680) [15 U.S.C. 5101 et seq.] and the Department of Energy Metal Casting Competitiveness Research Act of 1990 (Public Law 101-425) [15 U.S.C. 5301 et seq.].

(b) Program goals

The goals of the program established under subsection (a) of this section shall include—

- (1) in the buildings sector—
 - (A) to accelerate the development of technologies that will increase energy efficiency;
 - (B) to increase the use of renewable energy; and
 - (C) to reduce environmental impacts;
- (2) in the industrial sector—
 - (A) to accelerate the development of technologies that will increase energy efficiency in order to improve productivity;
 - (B) to increase the use of renewable energy; and
 - (C) to reduce environmental impacts; and
- (3) in the utility sector—
 - (A) to accelerate the development of technologies that will increase energy efficiency; and
 - (B) to increase the use of integrated resource planning.

(c) Program plan

Within 180 days after October 24, 1992, the Secretary shall prepare and submit to the Congress a 5-year program plan to guide activities under this part. In preparing the program plan, the Secretary shall consult with appropriate representatives of industry, utilities, institutions of higher education, Federal agencies, including national laboratories, and professional and technical societies.

(d) Proposals

Within 1 year after October 24, 1992, the Secretary shall solicit proposals for conducting activities under this section.

(e) Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this part, including all building, industry, and utility sectors energy conservation research and development, and inventions and innovation under energy conservation technical and financial assistance, \$178,250,000 for fiscal year 1993 and \$275,000,000 for fiscal year 1994.

(Pub. L. 102-486, title XXI, §2101, Oct. 24, 1992, 106 Stat. 3067.)

REFERENCES IN TEXT

Section 2106, referred to in subsec. (a), means section 2106 of Pub. L. 102-486, which amended sections 5103, 5107, 5108, 5110, and 5307 of Title 15, Commerce and Trade.

The Steel and Aluminum Energy Conservation and Technology Competitiveness Act of 1988, referred to in subsec. (a), is Pub. L. 100-680, Nov. 17, 1988, 102 Stat. 4073, as amended, which is classified generally to chapter 77 (§5101 et seq.) of Title 15. For complete classification of this Act to the Code, see Short Title note set out under section 5101 of Title 15 and Tables.

¹ See References in Text note below.

The Department of Energy Metal Casting Competitiveness Research Act of 1990, referred to in subsec. (a), is Pub. L. 101-425, Oct. 15, 1990, 104 Stat. 915, as amended, which is classified generally to chapter 79 (§5301 et seq.) of Title 15. For complete classification of this Act to the Code, see Short Title note set out under section 5301 of Title 15 and Tables.

This part, referred to in subsecs. (c) and (e), was in the original “this subtitle” meaning subtitle A of title XXI of Pub. L. 102-486, Oct. 24, 1992, 106 Stat. 3067, which enacted this part and amended sections 5103, 5107, 5108, 5110, and 5307 of Title 15.

DISTRICT HEATING AND COOLING PROGRAMS

Pub. L. 102-486, title I, §172, Oct. 24, 1992, 106 Stat. 2865, as amended by Pub. L. 109-58, title II, §206(b), Aug. 8, 2005, 119 Stat. 655, provided that:

“(a) IN GENERAL.—The Secretary, in consultation with appropriate industry organizations, shall conduct a study to—

“(1) assess existing district heating and cooling technologies to determine cost-effectiveness, technical performance, energy efficiency, and environmental impacts as compared to alternative methods for heating and cooling buildings;

“(2) estimate the economic value of benefits that may result from implementation of district heating and cooling systems but that are not currently recognized, such as reduced emissions of air pollutants, local economic development, and energy security;

“(3) evaluate the cost-effectiveness, including the economic value referred to in paragraph (2), of cogenerated district heating and cooling technologies compared to other alternatives for generating or conserving electricity;

“(4) assess and make recommendations for reducing institutional and other constraints on the implementation of district heating and cooling systems; and

“(5) evaluate the use of renewable energy systems (as such term is defined in section 415(c) of the Energy Conservation and Production Act (42 U.S.C. 6865(c))) in residential buildings.

“(b) REPORT.—Not later than 2 years after the date of the enactment of the Energy Policy Act of 2005 [Aug. 8, 2005], the Secretary shall transmit to the Congress a report containing the findings, conclusions and recommendations, if any, of the Secretary for carrying out Federal, State, and local programs as a result of the study conducted under subsection (a).”

STUDY AND REPORT ON VIBRATION REDUCTION TECHNOLOGIES

Pub. L. 102-486, title I, §173, Oct. 24, 1992, 106 Stat. 2865, as amended by Pub. L. 105-362, title IV, §401(c), Nov. 10, 1998, 112 Stat. 3282, provided that:

“(a) IN GENERAL.—The Secretary shall, in consultation with the appropriate industry representatives, conduct a study to assess the cost-effectiveness, technical performance, energy efficiency, and environmental impacts of active noise and vibration cancellation technologies that use fast adapting algorithms.

“(b) PROCEDURE.—In carrying out such study, the Secretary shall—

“(1) estimate the potential for conserving energy and the economic and environmental benefits that may result from implementing active noise and vibration abatement technologies in demand side management; and

“(2) evaluate the cost-effectiveness of active noise and vibration cancellation technologies as compared to other alternatives for reducing noise and vibration.

“(c) DEMONSTRATION.—The Secretary may, based on the findings and conclusions of the study carried out under this section, conduct at least one project designed to demonstrate the commercial application of active noise and vibration cancellation technologies using fast adapting algorithms in products or equipment with a significant potential for increased energy efficiency.”

§ 13452. Natural gas and electric heating and cooling technologies

(a) Program direction

(1) The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, on energy efficient natural gas and electric heating and cooling technologies for residential and commercial buildings.

(2) The natural gas heating and cooling program shall include activities on—

(A) thermally activated heat pumps, including absorption heat pumps and engine-driven heat pumps; and

(B) other advanced natural gas technologies, including fuel cells for residential and commercial applications.

(3) The electric heating and cooling program shall focus on—

(A) advanced heat pumps;

(B) thermal storage; and

(C) advanced electric HVAC (heating, ventilating, and air conditioning) and refrigeration systems that utilize replacements for chlorofluorocarbons.

(b) Proposals

Within 180 days after October 24, 1992, the Secretary shall solicit proposals for conducting activities under this section.

(Pub. L. 102-486, title XXI, §2102, Oct. 24, 1992, 106 Stat. 3068.)

§ 13453. Pulp and paper

(a) Program direction

The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, on advanced pulp and paper technologies. Such program shall include activities on energy generation technologies, boilers, combustion processes, pulping processes (excluding de-inking), chemical recovery, causticizing, source reduction processes, and other related technologies that can improve the energy efficiency of, and reduce the adverse environmental impacts of, pulp and papermaking operations. This section does not authorize projects involving the combustion of waste paper, other than gasification.

(b) Proposals

Within 180 days after October 24, 1992, the Secretary shall solicit proposals for conducting activities under this section.

(Pub. L. 102-486, title XXI, §2103, Oct. 24, 1992, 106 Stat. 3069.)

§ 13454. Advanced buildings for 2005

(a) Program direction

The Secretary shall initiate a 5-year program, in accordance with sections 13541 and 13542 of this title, to increase building energy efficiency, while maintaining affordability, by the year 2005. Such program shall include activities on—

(1) building design, design methods, and construction techniques;

(2) building materials, including recycled materials, and components;

- (3) on-site energy supply conversion systems such as photovoltaics;
- (4) automated energy management systems;
- (5) methods of evaluating performance; and
- (6) insulation products manufactured with nonozone depleting materials.

(b) Proposals**(1) Solicitation**

Within 1 year after October 24, 1992, the Secretary shall solicit proposals for conducting activities under this section.

(2) Contents of proposals

Proposals submitted under this subsection shall include and be judged upon—

- (A) evidence of knowledge of current building practices in the United States and in other countries;
- (B) an explanation of how the proposal will encourage the commercialization of the technologies resulting from activities in subsection (a) of this section;
- (C) evidence of consideration of collaboration with Department of Energy national laboratories;
- (D) evidence of collaboration with relevant industry or other groups or organizations; and
- (E) a demonstration of the ability of the proposers to undertake and complete the project proposed.

(Pub. L. 102-486, title XXI, §2104, Oct. 24, 1992, 106 Stat. 3069.)

§ 13455. Electric drives**(a) Program**

The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, to increase the efficiency of electric drive technologies, including adjustable speed drives, high speed motors, and high efficiency motors.

(b) Proposals

Within 1 year after October 24, 1992, the Secretary shall solicit proposals for projects under this section.

(Pub. L. 102-486, title XXI, §2105, Oct. 24, 1992, 106 Stat. 3070.)

§ 13456. Improving efficiency in energy-intensive industries**(a) Secretarial action**

The Secretary, in accordance with sections 13541 and 13542 of this title, shall—

- (1) pursue a research, development, demonstration and commercial application program intended to improve energy efficiency and productivity in energy-intensive industries and industrial processes; and
- (2) undertake joint ventures to encourage the commercialization of technologies developed under paragraph (1).

(b) Joint ventures

(1) The Secretary shall—

- (A) conduct a competitive solicitation for proposals from private firms and investors for such joint ventures under subsection (a)(2) of this section; and

(B) provide financial assistance to at least five such joint ventures.

(2) The purpose of the joint ventures shall be to design, test, and demonstrate changes to industrial processes that will result in improved energy efficiency and productivity. The joint ventures may also demonstrate other improvements of benefit to such industries so long as demonstration of energy efficiency improvements is the principal objective of the joint venture.

(3) In evaluating proposals for financial assistance and joint ventures under this section, the Secretary shall consider—

- (A) whether the activities conducted under this section improve the quality and energy efficiency of industries or industrial processes;
- (B) the regional distribution of the energy-intensive industries and industrial processes; and
- (C) whether the proposed joint venture project would be located in the region which has the energy-intensive industry and industrial processes that would benefit from the project.

(Pub. L. 102-486, title XXI, §2107, Oct. 24, 1992, 106 Stat. 3070.)

§ 13457. Energy efficient environmental program**(a) Program direction**

The Secretary, in consultation with the Administrator of the Environmental Protection Agency, is authorized to continue to carry out a 5-year program to improve the energy efficiency and cost effectiveness of pollution prevention technologies and processes, including source reduction and waste minimization technologies and processes. The purposes of this section shall be to—

- (1) apply a systems approach to minimizing adverse environmental effects of industrial production in the most cost effective and energy efficient manner; and
- (2) incorporate consideration of the entire materials and energy cycle with the goal of minimizing adverse environmental impacts.

(b) Identification of opportunities

Within 9 months after October 24, 1992, the Secretary, in consultation with the Administrator of the Environmental Protection Agency, shall identify opportunities for the demonstration of energy efficient pollution prevention technologies and processes.

(c) Report

Within 1 year after October 24, 1992, the Secretary shall submit a report to Congress evaluating the opportunities identified under subsection (b) of this section. Such report shall include—

- (1) an assessment of the technologies available to increase productivity and simultaneously reduce the consumption of energy and material resources and the production of wastes;
- (2) an assessment of the current use of such technologies by industry in the United States;
- (3) the status of any such technologies currently being developed, together with pro-

jected schedules of their commercial availability;

(4) the energy savings resulting from the use of such technologies;

(5) the environmental benefits of such technologies;

(6) the costs of such technologies;

(7) an evaluation of any existing Federal or State regulatory disincentives for the employment of such technologies; and

(8) an evaluation of any other barriers to the use of such technologies.

In preparing the report required by this subsection, the Secretary shall consult with the Administrator of the Environmental Protection Agency, any other Federal, State, or local official the Secretary considers necessary, representatives of appropriate industries, members of organizations formed to further the goals of environmental protection or energy efficiency, and other appropriate interested members of the public, as determined by the Secretary.

(d) Proposals

Within 1 year after October 24, 1992, the Secretary, in consultation with the Administrator of the Environmental Protection Agency, shall solicit proposals for activities under this section. Proposals selected under this subsection shall demonstrate—

(1) technical viability and cost effectiveness; and

(2) procedures for technology transfer and information outreach during and after completion of the project.

(Pub. L. 102-486, title XXI, § 2108, Oct. 24, 1992, 106 Stat. 3071.)

§ 13458. Energy efficient lighting and building centers

(a) Purpose

The purpose of this section is to encourage energy efficiency in buildings through the establishment of regional centers to promote energy efficient lighting, heating and cooling, and building design.

(b) Grants for establishment

Not later than 18 months after October 24, 1992, the Secretary shall make grants to nonprofit institutions, or to consortiums that may include nonprofit institutions, State and local governments, universities, and utilities, to establish or enhance one regional building energy efficiency center (hereafter in this section referred to as a “regional center”) in each of the 10 regions served by a Department of Energy regional support office.

(c) Permitted activities

Each regional center established under this section may—

(1) provide information, training, and technical assistance to building professionals such as architects, designers, engineers, contractors, and building code officials, on building energy efficiency methods and technologies, including lighting, heating and cooling, and passive solar;

(2) operate an outreach program to inform such building professionals of the benefits and

opportunities of energy efficiency, and of the services of the center;

(3) provide displays demonstrating building energy efficiency methods and technologies, such as lighting, windows, and heating and cooling equipment;

(4) coordinate its activities and programs with other institutions within the region, such as State and local governments, utilities, and educational institutions, in order to support their efforts to promote building energy efficiency;

(5) serve as a clearinghouse to ensure that information about new building energy efficiency technologies, including case studies of successful applications, is disseminated to end-users in the region;

(6) study the building energy needs of the region and make available region-specific energy efficiency information to facilitate the adoption of cost-effective energy efficiency improvements;

(7) assist educational institutions in establishing building energy efficiency engineering and technical programs and curricula; and

(8) evaluate the performance of the center in promoting building energy efficiency.

(d) Application

Any nonprofit institution or consortium interested in receiving a grant under this section shall submit to the Secretary an application in such form and containing such information as the Secretary may require. A lighting or building energy center in existence on October 24, 1992, which is owned and operated by a nonprofit institution or a consortium as described in subsection (b) of this section shall be eligible for a grant under this section.

(e) Selection criteria

The Secretary shall select recipients of grants under this section on the basis of the following criteria:

(1) The capability of the grant recipient to establish a board of directors for the regional center composed of representatives from utilities, State and local governments, building trade and professional organizations, manufacturers, and nonprofit energy and environmental organizations.

(2) The demonstrated or potential resources available to the grant recipient for carrying out this subsection.

(3) The demonstrated or potential ability of the grant recipient to promote building energy efficiency by carrying out the activities specified in subsection (c) of this section.

(4) The activities which the grant recipient proposes to carry out under the grant.

(f) Requirement of matching funds

(1) Federal share

The Federal share of a grant under this section shall be no more than 50 percent of the costs of establishing, and no more than 25 percent of the cost of operating the regional center.

(2) Non-Federal contributions

No grant may be made under this section in any fiscal year unless the recipient of such

grant enters into such agreements with the Secretary as the Secretary may require to ensure that such recipient will provide the necessary non-Federal contributions. Such non-Federal contributions may be provided by utilities, State and local governments, nonprofit institutions, foundations, corporations, and other non-Federal entities.

(g) Task force

The Secretary shall establish a task force to—

- (1) advise the Secretary on activities to be carried out by grant recipients;

- (2) review and evaluate programs carried out by grant recipients; and

- (3) make recommendations regarding the building energy efficiency center grant program.

(h) Membership terms and administration of task force

(1) In general

The task force shall be composed of approximately 20 members, appointed by the Secretary, with expertise in the area of building energy efficiency, including representatives from—

- (A) State or local energy offices;
- (B) utilities;
- (C) building construction trade or professional associations;
- (D) architecture, engineering or professional associations;
- (E) building component or equipment manufacturers;
- (F) from¹ national laboratories;
- (G) building code officials or professional associations; and
- (H) nonprofit energy or environmental organizations.

(2) Geographic representation

The Secretary shall ensure that there is broad geographical representation among task force members.

(3) Terms

Members shall be appointed for a term of 3 years. A vacancy in the task force shall be filled in the manner in which the original appointment was made.

(4) Pay

Members shall serve without pay. Each member shall receive travel expenses, including per diem in lieu of subsistence, in accordance with sections 5702 and 5703 of title 5.

(5) Chairperson

The Chairperson and Vice Chairperson of the task force shall be elected by the members.

(6) Meetings

The task force shall meet biannually and at the call of the Chairperson.

(7) Inapplicability of termination date

Section 14 of the Federal Advisory Committee Act shall not apply to the task force.

(i) Omitted

(j) Authorization of appropriations

There is authorized to be appropriated for purposes of carrying out this section, to remain

available until expended, not more than \$10,000,000 for each of fiscal years 1994, 1995, and 1996.

(Pub. L. 102-486, title I, §103, Oct. 24, 1992, 106 Stat. 2789.)

REFERENCES IN TEXT

Section 14 of the Federal Advisory Committee Act, referred to in subsec. (h)(7), is section 14 of Pub. L. 92-463, which is set out in the Appendix to Title 5, Government Organization and Employees.

CODIFICATION

Subsec. (i) of this section, which required the Secretary to transmit annually to Congress a report on the activities of regional centers established under this section, including the degree to which matching funds are being leveraged from private sources to establish and operate such centers, terminated, effective May 15, 2000, pursuant to section 3003 of Pub. L. 104-66, as amended, set out as a note under section 1113 of Title 31, Money and Finance. See, also, the 6th item on page 88 of House Document No. 103-7.

Section was enacted as part of title I of the Energy Policy Act, and not as part of title XXI of that Act which comprises this subchapter.

PART B—ELECTRICITY GENERATION AND USE

§ 13471. Renewable energy

(a) Program direction

The Secretary shall conduct a comprehensive 5-year program, in accordance with sections 13541 and 13542 of this title, to provide cost-effective options for the generation of electricity from renewable energy sources for grid and nongrid application, including field demonstrations of sufficient scale and number in operating environments to prove technical and economic feasibility for providing cost effective generation and for meeting the goal stated in section 13401(3) of this title and section 13382(a)(4) of this title.

(b) Program plan

Within 180 days after October 24, 1992, the Secretary shall prepare and submit to the Congress a 5-year program plan to guide the activities under this section. In preparing the program plan, the Secretary shall consult with appropriate representatives of industry, institutions of higher education, Federal agencies, including national laboratories, and professional and technical societies.

(c) Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this section, including all solar energy programs (other than activities under section 13431 of this title), geothermal systems, electric energy systems, and energy storage systems, \$208,975,000 for fiscal year 1993 and \$275,000,000 for fiscal year 1994.

(Pub. L. 102-486, title XXI, §2111, Oct. 24, 1992, 106 Stat. 3072.)

§ 13472. High efficiency heat engines

(a) Program direction

The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, to improve the efficiency of heat engines. Such program shall—

¹ So in original. The word "from" probably should not appear.

(1) include field demonstrations of sufficient scale and number so as to demonstrate technical and economic feasibility;

(2) incorporate materials that increase engine efficiency; and

(3) cover advanced engine designs for electric and industrial power generation for a range of small-, mid-, and large-scale applications, including—

(A) mechanically recuperated gas turbines;

(B) intercooled gas turbines with steam injection or recuperation;

(C) gas turbines utilizing reformed fuels or hydrogen; and

(D) high efficiency, simple cycle gas turbines.

(b) Program goal

The goal of the program established under subsection (a) of this section shall be to develop heat engines that can achieve over 50 percent efficiency in the mid-term.

(c) Program plan

Within 180 days after October 24, 1992, the Secretary shall prepare and submit to the Congress a 5-year program plan, to be included in the plan required under section 13451(c) of this title, to guide the activities under this section. In preparing the program plan, the Secretary shall consult with appropriate representatives of industry, institutions of higher education, Federal agencies, including the Environmental Protection Agency and national laboratories, and professional and technical societies.

(d) Proposals

Within 1 year after October 24, 1992, the Secretary shall solicit proposals for conducting activities under this section.

(e) Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this section such sums as may be necessary to be derived from sums authorized under section 13451(e) of this title.

(Pub. L. 102-486, title XXI, § 2112, Oct. 24, 1992, 106 Stat. 3072.)

§ 13473. Civilian nuclear waste

(a) Study

The Secretary shall conduct a study of the potential for minimizing the volume and toxic lifetime of nuclear waste, including an analysis of the viability of existing technologies and an assessment of the extent of research and development required for new technologies.

(b) Program

Based on the results of the study required under subsection (a) of this section, the Secretary shall prepare and submit to Congress a 5-year program plan for carrying out a program of research and development on new technologies for minimizing the volume and toxic lifetime of, and thereby mitigating hazards associated with, nuclear waste.

(c) Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this section \$4,700,000

for fiscal year 1993 and such sums as may be necessary for fiscal year 1994.

(Pub. L. 102-486, title XXI, § 2113, Oct. 24, 1992, 106 Stat. 3073.)

§ 13474. Fusion energy

(a) Program

The Secretary shall conduct a fusion energy 5-year program, in accordance with sections 13541 and 13542 of this title, that by the year 2010 will result in a technology demonstration which verifies the practicability of commercial electric power production.

(b) Program goals

The goals of the program established under subsection (a) of this section shall include—

(1) a broad based fusion energy program;

(2) United States participation in the Engineering Design Activity of the International Thermonuclear Experimental Reactor (ITER) program and in the related research and technology development efforts;

(3) the development of technology for fusion power and industrial participation in the development of such technology;

(4) the design and construction of a major new machine for fusion research and technology development consistent with paragraphs (2) and (3); and

(5) research and development for Inertial Confinement Fusion Energy and development of a Heavy Ion Inertial Confinement Fusion experiment.

(c) Management plan

(1) Within 180 days after October 24, 1992, the Secretary shall prepare a comprehensive management plan for the fusion energy program. The plan shall include specific program objectives, milestones and schedules for technology development, and cost estimates and program management resource requirements.

(2) The plan shall also include a description of—

(A) United States participation in the Engineering Design Activity of ITER, including industrial participation;

(B) potential United States participation in the construction and operation of an ITER facility; and

(C) the requirements needed to build and test an inertial fusion energy reactor for the purpose of power production.

(3) As part of the plan required under paragraph (1), the Secretary shall evaluate the status of international fusion programs and evaluate whether the Federal Government should initiate efforts to strengthen existing international cooperative agreements in fusion energy or enter into new cooperative agreements to accomplish the purposes of this section.

(4) The plan shall also evaluate the extent to which university or private sector participation is appropriate or necessary in order to carry out the purposes of this section.

(5) The President shall include in the budget submitted to the Congress each year under section 1105 of title 31 a report prepared by the Sec-

retary describing the progress made in meeting the program objectives, milestones, and schedules established in the management plan. Each such report shall also describe the organization of the program, the personnel assigned and funds committed to the program, and expenditures made in carrying out the program objectives. The report shall be submitted with the plan required under section 13523 of this title.

(d) Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this section \$339,710,000 for fiscal year 1993 and \$380,000,000 for fiscal year 1994.

(Pub. L. 102-486, title XXI, § 2114, Oct. 24, 1992, 106 Stat. 3073; Pub. L. 104-66, title I, § 1052(i), Dec. 21, 1995, 109 Stat. 719.)

AMENDMENTS

1995—Subsec. (c)(5). Pub. L. 104-66 inserted first sentence and struck out former first sentence which read as follows: “Within 1 year after October 24, 1992, and every 2 years thereafter, the Secretary shall issue a report describing the progress made in meeting the program objectives, milestones, and schedules established in the management plan.”

§ 13475. Fuel cells

(a) Program direction

The Secretary shall conduct a 5-year program, in accordance with sections 13541 and 13542 of this title, on efficient and environmentally benign power generation using fuel cells. The program may include activities on molten carbonate, solid oxide, including tubular, monolithic, and planar technologies, and advanced concepts.

(b) Program goal

The goal of the program established under subsection (a) of this section is the development of cost-effective, efficient, and environmentally benign fuel cell systems which will operate on fossil fuels in multiple end use sectors.

(c) Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this section \$51,555,000 for fiscal year 1993 and \$56,000,000 for fiscal year 1994.

(Pub. L. 102-486, title XXI, § 2115, Oct. 24, 1992, 106 Stat. 3074.)

§ 13476. Environmental restoration and waste management program

(a) Authorization of appropriations

There are authorized to be appropriated to the Secretary for fiscal year 1993 \$70,000,000 for the Fast Flux Test Facility to maintain the operational status of the reactor, such sums to be derived from amounts appropriated to the Secretary for the environmental restoration and waste management program.

(b) Long-term missions

The Secretary shall aggressively pursue the development and implementation of long-term missions for the Fast Flux Test Facility. Within 6 months after October 24, 1992, the Secretary shall submit to the Congress a report on the progress made in carrying out this subsection.

(Pub. L. 102-486, title XXI, § 2116, Oct. 24, 1992, 106 Stat. 3075.)

§ 13477. High-temperature superconductivity program

(a) Program

The Secretary shall carry out a 5-year program, in accordance with sections 13541 and 13542 of this title, on high-temperature superconducting electric power equipment technologies. Elements of the program shall include, but are not limited to—

(1) activities that address the development of high-temperature superconducting materials that have increased electrical current capacity, which shall be the emphasis of the program for the near-term;

(2) the development of prototypes, where appropriate, of the major elements of a superconducting electric power system such as motors, generators, transmission lines, transformers, and magnetic energy storage systems;

(3) activities that will improve the efficiency of materials performance of higher temperatures and at all magnetic field orientations;

(4) development of prototypes based on high-temperature superconducting wire, that operate at the highest temperature possible, and refrigeration systems using cryogenics such as nitrogen;

(5) activities that will assist the private sector with designs for more efficient electric power generation and delivery systems which are cost competitive with conventional energy systems; and

(6) development of prototypes that have application in both the commercial and defense sectors.

The Secretary is also encouraged to expedite government, laboratory, industry, and university collaborative agreements under existing mechanisms at the Department of Energy in coordination with other Federal agencies.

(b) Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this section \$21,900,000 for fiscal year 1993 and such sums as may be necessary for subsequent fiscal years, to be derived from sums authorized under section 13471(c) of this title.

(Pub. L. 102-486, title XXI, § 2117, Oct. 24, 1992, 106 Stat. 3075.)

§ 13478. Electric and magnetic fields research and public information dissemination program

(a) Program

The Secretary shall, in accordance with this section (including the agenda developed under subsection (d)(1)(A) of this section) and within 2 months after October 24, 1992, establish a comprehensive program to—

(1) determine whether or not exposure to electric and magnetic fields produced by the generation, transmission, and use of electric energy affects human health;

(2) carry out research, development, and demonstration with respect to technologies to

mitigate any adverse human health effects; and

(3) provide for dissemination of information described in subsection (b)(1) of this section to the public.

(b) Contents

The program shall provide for—

(1) collection, compilation, publication, and dissemination of scientifically valid information on—

(A) possible human health effects of electric and magnetic fields;

(B) the types and extent of human exposure to electric and magnetic fields in various occupational and residential settings;

(C) technologies to measure and characterize electric and magnetic fields; and

(D) methods to assess and manage exposure to electric and magnetic fields;

(2)(A) research on mechanisms by which electric and magnetic fields interact with biological systems; and

(B) epidemiological research on the possible human health effects of electric and magnetic fields; and

(3) research, development, and demonstration with respect to—

(A) technologies to improve the measurement and characterization of electric and magnetic fields; and

(B) techniques to assess and manage exposure to electric and magnetic fields.

(c) Role of Director

(1) Role of Director

The Secretary of Health and Human Services, acting through the Director, shall have sole responsibility under the program for research on possible human health effects of electric and magnetic fields. The Director may delegate this responsibility to the extent the Director determines appropriate.

(2) Agreement

Within 6 months after October 24, 1992, the Secretary shall enter into an agreement with the Secretary of Health and Human Services to carry out, through the Director, the information activities under subsection (b)(1)(A) of this section and the research under subsection (b)(2) of this section.

(3) Actions of Director

The actions of the Director in carrying out research and information responsibilities under this section shall not be subject to approval by the Secretary.

(4) Transfer of funds

The Secretary is authorized, subject to appropriations Acts, to transfer funds to the Director to carry out the Director's responsibilities under paragraph (2).

(5) Report

The Director shall report, by June 1, 1995, and by March 31, 1998, and as appropriate, to the Interagency Committee established under subsection (d) of this section and to Congress the findings and conclusions of the Director on the extent to which exposure to electric and

magnetic fields produced by the generation, transmission, or use of electric energy affects human health.

(d) Interagency Committee

(1) The President shall, within 2 months after October 24, 1992, establish the Electric and Magnetic Fields Interagency Committee to—

(A) develop within 8 months after October 24, 1992, a comprehensive agenda for conducting research, development, and demonstration under the program, with particular emphasis on electric and magnetic fields of the 60 hertz frequency;

(B) develop recommendations, within 8 months after October 24, 1992, for guidelines for the coordination of activities of Federal agencies engaged in research on human health effects of electric and magnetic fields that ensure that such research advances the agenda under subparagraph (A) and is not unnecessarily duplicative of other research activities;

(C) develop recommendations, within 8 months after October 24, 1992, for mechanisms for communication of the results of the program to the public, including recommendations on the scope and nature of the information to be disseminated; and

(D) monitor, review and periodically evaluate the program.

(2)(A) The Interagency Committee shall be composed of 9 members with 1 member to be appointed from each of the following:

(i) The Department of Energy.

(ii) The National Institute of Environmental Health Sciences.

(iii) The Environmental Protection Agency.

(iv) The Department of Defense.

(v) The Occupational Safety and Health Administration.

(vi) The National Institute of Standards and Technology.

(vii) The Department of Transportation.

(viii) The Rural Electrification Administration.

(ix) The Federal Energy Regulatory Commission.

(B) The Interagency Committee shall elect a chairperson from among its members who shall be responsible for ensuring that the duties of the Interagency Committee are carried out.

(C) Agencies that have members on the Interagency Committee shall provide appropriate staff to carry out the duties of the Interagency Committee.

(e) Advisory Committee

(1) Not later than 2 months after October 24, 1992, the Secretary of Health and Human Services and the Secretary shall establish the National Electric and Magnetic Fields Advisory Committee in accordance with the Federal Advisory Committee Act [5 U.S.C. App.] and this section.

(2) The Advisory Committee shall make recommendations to the Interagency Committee with respect to the duties of the Interagency Committee under subsection (d)(1) of this section and advise the Secretary and the Director with respect to the design and implementation of the program, including preparation of solici-

tations for proposals to conduct research under the program.

(3) The Advisory Committee shall be composed of 10 members, chosen from among experts in possible human health effects of electric and magnetic fields, experts in the measurement and characterization of electric and magnetic fields, experts in the assessment and management of electric and magnetic fields, State regulatory agencies, State health agencies, electric utilities, electric equipment manufacturers, labor unions and the public. Five members shall be chosen by the Secretary of Health and Human Services in consultation with the Director, and 5 members shall be chosen by the Secretary.

(4) The Advisory Committee shall elect a chairperson from among its members who shall be responsible for ensuring that the duties of the Advisory Committee are carried out.

(5) The Advisory Committee shall terminate not later than December 31, 1998.

(f) Financial assistance

(1) The Secretary and the Director may provide financial assistance and enter into contracts to conduct activities under the program.

(2) The Secretary shall solicit contributions from non-Federal sources to offset at least 50 percent of the total funding for all activities under the program. The Secretary shall adopt procedures, including a mechanism for collecting contributions, that ensures that no contributor of non-Federal funds may influence the program.

(3) The Secretary may not obligate funds under this section in any fiscal year unless funds received from non-Federal sources under paragraph (2) are available to offset at least 50 percent of the appropriations made under subsection (j) of this section for such fiscal year.

(4) SOLICITATION AND SELECTION OF PROPOSALS.—

(A) IN GENERAL.—Within 15 months after October 24, 1992, and as often thereafter as appropriate, the Secretary and the Director shall, in consultation with the Interagency Committee, solicit and select proposals to conduct activities under the program.

(B) CONSULTATION WITH ADVISORY COMMITTEE.—In preparing solicitations for proposals to conduct activities, the Secretary and the Director shall consult with the Advisory Committee.

(C) PEER REVIEW PANELS.—Before a proposal to conduct activities under the program may be selected by the Secretary or the Director, such proposal must be submitted to, and evaluated by, at least one scientific and technical peer review panel.

(g) Reports

(1) Report upon completion of activity

Any person who conducts activities under the program shall, upon completion of the activity, submit to the National Academy of Sciences, the Interagency Committee, and the Advisory Committee a report summarizing the activities and results thereof.

(2) Report to Interagency Committee and Advisory Committee

The Secretary shall enter into appropriate arrangements with the National Academy of

Sciences under which the Academy shall periodically submit to the Interagency Committee and the Advisory Committee a report that evaluates the research activities under the program. The report shall include recommendations to promote the effective transfer of information derived from such research projects, including the transfer to representatives of State regulatory agencies, State health agencies, electric utilities, electrical equipment manufacturers, labor unions, and the public. The Secretary shall be responsible for expenses incurred by the Academy in connection with the preparation of such reports.

(3) Report to Congress

The Interagency Committee, in consultation with the Advisory Committee, shall submit to the Secretary and the Congress—

(A) not later than December 31, 1995, a report summarizing the progress of the research program established under this subsection; and

(B) not later than September 30, 1998, a final report stating the Committee's findings and conclusions on the effects, if any, of electric and magnetic fields on human health and remedial actions, if any, that may be needed to minimize any such health effects.

(h) Conflicts of interest

The Secretary and the Director shall include conflict of interest provisions in any grant or other funding provided, or contract entered into, under the research program established under this section including provisions—

(1) that require any person conducting a project under such program to disclose any other source of funding received by the person to conduct other related projects, including funding received from consulting on issues relating to electric and magnetic fields; and

(2) that prohibit a person who has been awarded a grant or contract under this program from receiving compensation beyond expenses for testifying in a court of law as an expert on the specific research the person is conducting under such grant or contract.

(i) Definitions

For purposes of this section:

(1) The term "Advisory Committee" means the National Electric and Magnetic Fields Advisory Committee established under subsection (e) of this section.

(2) The term "Interagency Committee" means the Electric and Magnetic Fields Interagency Committee established under subsection (d) of this section.

(3) The term "Director" means the Director of the National Institute of Environmental Health Sciences.

(4) The term "program" means the electric and magnetic fields research and public information dissemination program established in subsection (a) of this section.

(5) The term "State" means each of the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, the Virgin Islands, American Samoa, the Trust Terri-

tory of the Pacific Islands, and any other commonwealth, territory, or possession of the United States.

(j) Authorization of appropriations

(1) General authorization

There are authorized to be appropriated to the Secretary a total of \$46,000,000 for the period encompassing fiscal years 1993 through 1998 to carry out the provisions of this section, except that not more than \$1,000,000 may be expended in any such fiscal year for activities under subsection (b)(1) of this section. Any amounts appropriated pursuant to this paragraph shall remain available until expended.

(2) Restrictions on use of funds

(A) Administrative expenses of certain funding recipients

Of the total funds provided to any institution under this section, the amount of such funds that may be used for the administrative indirect costs of the institution may not exceed 26 percent of the modified direct costs of the project.

(B) Administrative expenses of the Secretary and the Director

Of the total amount of funds made available under this section for any fiscal year, not more than 10 percent of such funds may be used for authorized administrative expenses of the Secretary and the Director in carrying out this section.

(C) Construction and rehabilitation of facilities and equipment

Funds made available under this section may not be used for the construction or rehabilitation of facilities or fixed equipment.

(k) Sense of Congress

It is the sense of the Congress that remedial action taken by the Government on electric and magnetic fields, if and as necessary, should be based on, and consistent with, scientifically valid research such as the results and findings of the research authorized by this Act.

(l) Sunset provision

All authority under this section shall expire on December 31, 1998.

(Pub. L. 102-486, title XXI, §2118, Oct. 24, 1992, 106 Stat. 3075; Pub. L. 105-23, §1, July 3, 1997, 111 Stat. 237.)

REFERENCES IN TEXT

The Federal Advisory Committee Act, referred to in subsec. (e)(1), is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in the Appendix to Title 5, Government Organization and Employees.

This Act, referred to in subsec. (k), is Pub. L. 102-486, Oct. 24, 1992, 106 Stat. 2776, known as the Energy Policy Act of 1992. For complete classification of this Act to the Code, see Short Title note set out under section 13201 of this title and Tables.

AMENDMENTS

1997—Subsecs. (c)(5), (e)(5), (g)(3)(B). Pub. L. 105-23, §1(1), substituted “1998” for “1997”.

Subsec. (j)(1). Pub. L. 105-23 substituted “\$46,000,000” for “\$65,000,000” and “1998” for “1997”.

Subsec. (l). Pub. L. 105-23, §1(1), substituted “1998” for “1997”.

TERMINATION OF TRUST TERRITORY OF THE PACIFIC ISLANDS

For termination of Trust Territory of the Pacific Islands, see note set out preceding section 1681 of Title 48, Territories and Insular Possessions.

§ 13479. Spark M. Matsunaga Renewable Energy and Ocean Technology Center

(a) Findings

The Congress finds that—

(1) the late Spark M. Matsunaga, United States Senator from Hawaii, was a longstanding champion of research and development of renewable energy, particularly wind and ocean energy, photovoltaics, and hydrogen fuels;

(2) it was Senator Matsunaga’s vision that renewable energy could provide a sustained source of non-polluting energy and that such forms of alternative energy might ultimately be employed in the production of liquid hydrogen as a transportation fuel and energy storage medium available as an energy export;

(3) Senator Matsunaga also believed that research on other aspects of renewable energy and ocean resources, such as advanced materials, could be crucial to full development of energy storage and conversion systems; and

(4) Keahole Point, Hawaii is particularly well-suited as a site to conduct renewable energy and associated marine research.

(b) Purpose

It is the purpose of this section to establish the facilities and equipment located at Keahole Point, Hawaii as a cooperative research and development facility, to be known as the Spark M. Matsunaga Renewable Energy and Ocean Technology Center.

(c) Establishment

The facilities and equipment located at Keahole Point, Hawaii are established as the Spark M. Matsunaga Renewable Energy and Ocean Technology Center (in this section referred to as the “Center”).

(d) Administration

(1) Not later than 180 days after October 24, 1992, the Secretary may authorize a cooperative agreement with a qualified research institution to administer the Center.

(2) For the purpose of paragraph (1), a qualified research institution is a research institution located in the State of Hawaii that has demonstrated competence and will be the lead organization in the State in renewable energy and ocean technologies.

(e) Activities

The Center may carry out research, development, educational, and technology transfer activities on—

(1) renewable energy;

(2) energy storage, including the production of hydrogen from renewable energy;

(3) materials applications related to energy and marine environments;

(4) other environmental and ocean research concepts, including sea ranching and global climate change; and

(5) such other matters as the Secretary may direct.

(f) Matching funds

To be eligible for Federal funds under this section, the Center must provide funding in cash or in kind from non-Federal sources for each amount provided by the Secretary.

(g) Authorization of appropriations

There is authorized to be appropriated to the Secretary for carrying out this section such sums as may be necessary, to be derived from sums authorized under section 13471(c) of this title.

(Pub. L. 102-486, title XXI, §2119, Oct. 24, 1992, 106 Stat. 3080.)

PART C—ADVANCED NUCLEAR REACTORS

§ 13491. Purposes and definitions**(a) Purposes**

The purposes of this part are—

(1) to require the Secretary to carry out civilian nuclear programs in a way that will lead toward the commercial availability of advanced nuclear reactor technologies; and

(2) to authorize such activities to further the timely availability of advanced nuclear reactor technologies, including technologies that utilize standardized designs or exhibit passive safety features.

(b) Definitions

For purposes of this part—

(1) the term “advanced nuclear reactor technologies” means—

(A) advanced light water reactors that may be commercially available in the near-term, including but not limited to mid-sized reactors with passive safety features for the generation of commercial electric power from nuclear fission; and

(B) other advanced nuclear reactor technologies that may require prototype demonstration prior to commercial availability in the mid- or long-term, including but not limited to high-temperature, gas-cooled reactors and liquid metal reactors, for the generation of commercial electric power from nuclear fission;

(2) the term “Commission” means the Nuclear Regulatory Commission;

(3) the term “standardized design” means a design for a nuclear power plant that may be utilized for a multiple number of units or a multiple number of sites; and

(4) the term “certification” means approval by the Commission of a standardized design.

(Pub. L. 102-486, title XXI, §2121, Oct. 24, 1992, 106 Stat. 3081.)

REFERENCES IN TEXT

This part, referred to in text, was in the original “this subtitle” meaning subtitle C of title XXI of Pub. L. 102-486, Oct. 24, 1992, 106 Stat. 3081, which enacted this part and amended sections 12003 and 12004 of this title.

§ 13492. Program, goals, and plan**(a) Program direction**

The Secretary shall conduct a program to encourage the deployment of advanced nuclear re-

actor technologies that to the maximum extent practicable—

(1) are cost effective in comparison to alternative sources of commercial electric power of comparable availability and reliability, taking into consideration life cycle environmental costs;

(2) facilitate the design, licensing, construction, and operation of a nuclear powerplant using a standardized design;

(3) exhibit enhanced safety features; and

(4) incorporate features that advance the objectives of the Nuclear Non-Proliferation Act of 1978 [22 U.S.C. 3201 et seq.].

(b) Program goals

The goals of the program established under subsection (a) of this section shall include—

(1) for the near-term—

(A) to facilitate the completion, by September 30, 1996, for certification by the Commission, of standardized advanced light water reactor technology designs that the Secretary determines have the characteristics described in subsection (a)(1) through (4) of this section;

(B) to facilitate the completion of submissions, by September 30, 1996, for preliminary design approvals by the Commission of standardized designs for the modular high-temperature gas-cooled reactor technology and the liquid metal reactor technology; and

(C) to evaluate by September 30, 1996, actinide burn technology to determine if it can reduce the volume of long-lived fission by-products;

(2) for the mid-term—

(A) to facilitate increased efficiency of enhanced safety, advanced light water reactors to produce electric power at the lowest cost to the customer;

(B) to develop advanced reactor concepts that are passively safe and environmentally acceptable; and

(C) to complete necessary research and development on high-temperature gas-cooled reactor technology and liquid metal reactor technology to support the selection, by September 30, 1998, of one or both of those technologies as appropriate for prototype demonstration; and

(3) for the long-term, to complete research and development and demonstration to support the design of advanced reactor technologies capable of providing electric power to a utility grid as soon as practicable but no later than the year 2010.

(c) Program plan

Within 180 days after October 24, 1992, the Secretary shall prepare and submit to the Congress a 5-year program plan to guide the activities under this section. The program plan shall include schedule milestones, Federal funding requirements, and non-Federal cost sharing requirements. In preparing the program plan, the Secretary shall take into consideration—

(1) the need for, and the potential for future adoption by electric utilities or other entities of, advanced nuclear reactor technologies that are available, under development, or have the

potential for being developed, for the generation of energy from nuclear fission;

(2) how the Federal Government, acting through the Secretary, can be effective in ensuring the availability of such technologies when they are needed;

(3) how the Federal Government can most effectively cooperate with the private sector in the accomplishment of the goals set forth in subsection (b) of this section; and

(4) potential alternative funding sources for carrying out this section.

In preparing the program plan, the Secretary shall consult with appropriate representatives of industry, institutions of higher education, Federal agencies, including national laboratories, and professional and technical societies. The Secretary shall update the program plan annually and submit such update to Congress. Each such update shall describe any activities that are behind schedule, any funding shortfalls, and any other circumstances that might affect the ability of the Secretary to meet the goals set forth in subsection (b) of this section.

(Pub. L. 102-486, title XXI, § 2122, Oct. 24, 1992, 106 Stat. 3082.)

REFERENCES IN TEXT

The Nuclear Non-Proliferation Act of 1978, referred to in subsec. (a)(4), is Pub. L. 95-242, Mar. 10, 1978, 92 Stat. 120, as amended, which is classified principally to chapter 47 (§ 3201 et seq.) of Title 22, Foreign Relations and Intercourse. For complete classification of this Act to the Code, see Short Title note set out under section 3201 of Title 22 and Tables.

§ 13493. Commercialization of advanced light water reactor technology

(a) Certification of designs

In order to achieve the goal of certification of completed standardized designs by the Commission by 1996 as set forth in section 13492(b) of this title, the Secretary shall conduct a 5-year program of technical and financial assistance to encourage the development and submission for certification of advanced light water reactor designs which, in the judgment of the Secretary, can be certified by the Commission by no later than the end of fiscal year 1996.

(b) First-of-a-kind engineering

(1) Establishment of program

The Secretary shall conduct a program of Federal financial and technical assistance for the first-of-a-kind engineering design of standardized commercial nuclear powerplants which are included, as of October 24, 1992, in the Department of Energy's program for certification of advanced light water reactor designs.

(2) Selection criteria

In order to be eligible for assistance under this subsection, an entity shall certify to the satisfaction of the Secretary that—

(A) the entity, or its members, are bona fide entities engaged in the design, engineering, manufacture, construction, or operation of nuclear reactors;

(B) the entity, or its members, have the financial resources necessary for, and fully intend to pursue the design, engineering, man-

ufacture, construction, and operation in the United States of nuclear power plants¹ through completion of construction and into operation;

(C) the design proposed is scheduled for certification by the Commission under the Department of Energy's program for certification of light water reactor designs; and

(D) at least 50 percent of the funding for the project shall be obtained from non-Federal sources, and a substantial portion of that non-Federal funding shall be obtained from utilities or entities whose primary purpose is the production of electrical power for public consumption.

(3) Program documents

The Secretary shall prepare and submit to the Congress a program document for each design selected under this subsection, specifying goals and objectives, major milestones for achieving those goals and objectives, and the work products to be provided to the Secretary or made available for inspection.

(4) Funding limitations

(A) Before entering into an agreement with an entity under this subsection, the Secretary shall establish a cost ceiling for the contribution of the Federal Government for the project, and shall report such cost ceiling to the Congress.

(B) No entity shall receive assistance under this subsection for a period greater than 4 years.

(C) The aggregate funding provided by the Secretary for projects under this subsection shall not exceed \$100,000,000 for the period encompassing fiscal years 1993 through 1997.

(Pub. L. 102-486, title XXI, § 2123, Oct. 24, 1992, 106 Stat. 3083.)

CODIFICATION

Subsec. (b)(5) of this section, which required the Secretary to submit annually to Congress a status report on each project receiving assistance under subsec. (b), terminated, effective May 15, 2000, pursuant to section 3003 of Pub. L. 104-66, as amended, set out as a note under section 1113 of Title 31, Money and Finance. See, also, the last item on page 85 of House Document No. 103-7.

§ 13494. Prototype demonstration of advanced nuclear reactor technology

(a) Solicitation of proposals

Within 3 years after October 24, 1992, the Secretary shall solicit proposals for carrying out the preliminary engineering design of not more than 2 prototype advanced nuclear reactor technologies developed by the Department of Energy, other than advanced light water reactor technologies, necessary to support a decision on whether to recommend construction of a prototype demonstration reactor with the characteristics described in section 13493(a) of this title. Proposals submitted under this subsection shall be for modular design concepts of sufficient size to address requirements related to the certification of a standardized design.

¹ So in original. Probably should be "powerplants".

(b) Recommendation to Congress

(1) Not later than September 30, 1998, the Secretary shall submit to Congress recommendations on whether to build one or more prototype demonstration reactors under this section. Such recommendations shall—

(A) specify a preferred technology or technologies;

(B) include detailed information on milestones for construction and operation;

(C) include an estimate of the funding requirements; and

(D) specify the extent and type of non-Federal financial support anticipated.

In developing the recommendations under this paragraph, the Secretary shall provide for public notice and an opportunity for comment, and shall solicit the views of the Commission and other parties with technical expertise the Secretary considers useful in the development of such recommendations.

(2) The prototype demonstration program under this section shall be carried out to the maximum extent practicable with private sector funding. At least 50 percent of the funding for such program shall be non-Federal funding. The extent of non-Federal cost sharing proposed for any demonstration project shall be a criterion for the selection of the project.

(c) Selection of technology

Any technology selected by the Secretary for recommendation for prototype demonstration under this section shall to the maximum extent possible exhibit the characteristics set forth in section 13493(a) of this title.

(Pub. L. 102-486, title XXI, §2124, Oct. 24, 1992, 106 Stat. 3084.)

§ 13495. Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this part \$212,804,000 for fiscal year 1993 and such sums as may be necessary for fiscal year 1994. Amounts authorized or otherwise made available for program direction, space reactor power systems, advanced radioisotope power systems, and the space exploration initiative under nuclear energy research and development shall be in addition to the amounts authorized in the preceding sentence.

(Pub. L. 102-486, title XXI, §2126, Oct. 24, 1992, 106 Stat. 3085.)

SUBCHAPTER X—ENERGY AND ECONOMIC GROWTH

§ 13501. National Advanced Materials Program**(a) Program direction**

The Secretary shall establish a 5-year National Advanced Materials Program, in accordance with sections 13541 and 13542 of this title. Such program shall foster the commercialization of techniques for processing, synthesizing, fabricating, and manufacturing advanced materials and associated components. At a minimum, the Program shall expedite the private sector deployment of advanced materials for use in high performance energy efficient and renewable energy technologies in the industrial, transpor-

tation, and buildings sectors that can foster economic growth and competitiveness. The Program shall include field demonstrations of sufficient scale and number to prove technical and economic feasibility.

(b) Program plan

Within 180 days after October 24, 1992, the Secretary, in consultation with appropriate representatives of industry, institutions of higher education, Department of Energy national laboratories, and professional and technical societies, shall prepare and submit to the Congress a 5-year program plan to guide activities under this section. The Secretary shall biennially update and resubmit the program plan to Congress.

(c) Proposals**(1) Solicitation**

Within 1 year after October 24, 1992, the Secretary shall solicit proposals for conducting activities consistent with the 5-year program plan. Such proposals may be submitted by one or more parties.

(2) Contents of proposals

Proposals submitted under this subsection shall include—

(A) an explanation of how the proposal will expedite the commercialization of advanced materials in energy efficiency or renewable energy in the near-term to mid-term;

(B) evidence of consideration of whether the unique capabilities of Department of Energy national laboratories warrants collaboration with such laboratories, and the extent of such collaboration proposed;

(C) a description of the extent to which the proposal includes collaboration with relevant industry or other groups or organizations; and

(D) evidence of the ability of the proposers to undertake and complete the proposed project.

(d) General Services Administration demonstration program

The Secretary, in consultation with the Administrator of General Services, shall establish a program to expedite the use, in goods and services acquired by the General Services Administration, of advanced materials technologies. Such program shall include a demonstration of the use of advanced materials technologies as may be necessary to establish technical and economic feasibility. The Secretary shall transfer funds to the General Services Administration for carrying out this subsection.

(e) Authorization of appropriations

There are authorized to be appropriated to the Secretary for carrying out this section such sums as may be necessary, to be derived for energy efficient applications from section 13451(e) of this title and for renewable applications from section 13471(c) of this title, including Department of Energy national laboratory participation in proposals submitted under subsection (c) of this section, and including transferring funds to the General Services Administration.

(Pub. L. 102-486, title XXII, §2201, Oct. 24, 1992, 106 Stat. 3085.)