

- (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 reactor 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, manufacture, 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

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