

- (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