

(Pub. L. 109–58, title IX, §947, Aug. 8, 2005, 119 Stat. 883.)

PART E—NUCLEAR ENERGY

§ 16271. Nuclear energy

(a) In general

The Secretary shall conduct programs of civilian nuclear energy research, development, demonstration, and commercial application, including activities described in this part. Programs under this part shall take into consideration the following objectives:

- (1) Enhancing nuclear power's viability as part of the United States energy portfolio.
- (2) Providing the technical means to reduce the likelihood of nuclear proliferation.
- (3) Maintaining a cadre of nuclear scientists and engineers.
- (4) Maintaining National Laboratory and university nuclear programs, including their infrastructure.
- (5) Supporting both individual researchers and multidisciplinary teams of researchers to pioneer new approaches in nuclear energy, science, and technology.
- (6) Developing, planning, constructing, acquiring, and operating special equipment and facilities for the use of researchers.
- (7) Supporting technology transfer and other appropriate activities to assist the nuclear energy industry, and other users of nuclear science and engineering, including activities addressing reliability, availability, productivity, component aging, safety, and security of nuclear power plants.
- (8) Reducing the environmental impact of nuclear energy-related activities.

(b) Authorization of appropriations for core programs

There are authorized to be appropriated to the Secretary to carry out nuclear energy research, development, demonstration, and commercial application activities, including activities authorized under this part, other than those described in subsection (c)—

- (1) \$330,000,000 for fiscal year 2007;
- (2) \$355,000,000 for fiscal year 2008; and
- (3) \$495,000,000 for fiscal year 2009.

(c) Nuclear infrastructure and facilities

There are authorized to be appropriated to the Secretary to carry out activities under section 16275 of this title—

- (1) \$135,000,000 for fiscal year 2007;
- (2) \$140,000,000 for fiscal year 2008; and
- (3) \$145,000,000 for fiscal year 2009.

(d) Allocations

From amounts authorized under subsection (a), the following sums are authorized:

- (1) For activities under section 16273 of this title—
 - (A) \$150,000,000 for fiscal year 2007;
 - (B) \$155,000,000 for fiscal year 2008; and
 - (C) \$275,000,000 for fiscal year 2009.
- (2) For activities under section 16274 of this title—
 - (A) \$43,600,000 for fiscal year 2007;
 - (B) \$50,100,000 for fiscal year 2008; and

(C) \$56,000,000 for fiscal year 2009.

(3) For activities under section 16277 of this title, \$6,000,000 for each of fiscal years 2007 through 2009.

(e) Limitation

None of the funds authorized under this section may be used to decommission the Fast Flux Test Facility.

(Pub. L. 109–58, title IX, §951, Aug. 8, 2005, 119 Stat. 884.)

§ 16272. Nuclear energy research programs

(a) Nuclear Energy Research Initiative

The Secretary shall carry out a Nuclear Energy Research Initiative for research and development related to nuclear energy.

(b) Nuclear Energy Systems Support Program

The Secretary shall carry out a Nuclear Energy Systems Support Program to support research and development activities addressing reliability, availability, productivity, component aging, safety, and security of existing nuclear power plants.

(c) Nuclear Power 2010 Program

(1) In general

The Secretary shall carry out a Nuclear Power 2010 Program, consistent with recommendations of the Nuclear Energy Research Advisory Committee of the Department in the report entitled “A Roadmap to Deploy New Nuclear Power Plants in the United States by 2010” and dated October 2001.

(2) Administration

The Program shall include—

(A) use of the expertise and capabilities of industry, institutions of higher education, and National Laboratories in evaluation of advanced nuclear fuel cycles and fuels testing;

(B) consideration of a variety of reactor designs suitable for both developed and developing nations;

(C) participation of international collaborators in research, development, and design efforts, as appropriate; and

(D) encouragement for participation by institutions of higher education and industry.

(d) Generation IV Nuclear Energy Systems Initiative

(1) In general

The Secretary shall carry out a Generation IV Nuclear Energy Systems Initiative to develop an overall technology plan for and to support research and development necessary to make an informed technical decision about the most promising candidates for eventual commercial application.

(2) Administration

In conducting the Initiative, the Secretary shall examine advanced proliferation-resistant and passively safe reactor designs, including designs that—

(A) are economically competitive with other electric power generation plants;

(B) have higher efficiency, lower cost, and improved safety compared to reactors in operation on August 8, 2005;