

tive, 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. Omitted**

CODIFICATION

Section, Pub. L. 102-486, title XXI, §2118, Oct. 24, 1992, 106 Stat. 3075; Pub. L. 105-23, §1, July 3, 1997, 111 Stat. 237, which authorized the Secretary to establish an electric and magnetic fields research and public information dissemination program, expired on Dec. 31, 1998.

**§ 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 long-standing 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 institu-