

vided for the environmental cleanup of the Department's uranium enrichment plants, two of which are currently leased to the USEC, and the cleanup of uranium mill tailings and thorium piles resulting from production and sales to the Federal Government for the Manhattan project and other national security purposes.

Due to budget constraints, the Committee recommendation includes a reduction of \$77,000,000 from the budget request of \$277,000,000.

The Committee is aware that the Secretary of Energy has failed to implement section 511 of the energy and water appropriations conference report for fiscal year 1998 regarding restoration of the arming and arrest authority at the Paducah and Portsmouth gaseous diffusion plants. In accordance with testimony by the Nuclear Regulatory Commission, the Committee agrees that the Secretary of Energy is responsible for implementation of these guidelines affecting arming and arrest authority under section 161k of the Atomic Energy Act of 1954 (42 U.S.C. 2201k). The Committee also expects that the Secretary will define adequate security guards carrying sidearms as all security guards employed at both Paducah and Portsmouth plants. The Committee concurs with the Nuclear Regulatory Commission and directs the Secretary to implement section 511 immediately.

NUCLEAR WASTE FUND

Appropriations, 1998	\$160,000,000
Budget estimate, 1999	190,000,000
Committee recommendation	190,000,000

The Committee has provided \$4,875,000 for the State of Nevada and \$5,540,000 for affected local governments in accordance with statutory restrictions contained in the Nuclear Waste Policy Act.

Data repository.—The Committee recommendation includes \$1,000,000 for the University of Nevada Las Vegas to manage data from scientific studies of Yucca Mountain.

Cannister aging and corrosion.—The Committee recommendation includes \$2,000,000 for the Office of Civilian Radioactive Waste Management to study cannister aging and corrosion to further the understanding of the interaction of nuclear waste with cannisters and the effects of aging and corrosion on waste sequestration.

SCIENCE

Appropriations, 1998	\$2,235,708,000
Budget estimate, 1999	2,482,460,000
Committee recommendation	2,669,560,000

The Committee has completed its consolidation of the Department's science accounts by moving fusion energy sciences from the "Energy supply" account to the "Science" account.

HIGH ENERGY PHYSICS

Appropriations, 1998	\$680,035,000
Budget estimate, 1999	691,000,000
Committee recommendation	691,000,000

The Committee has provided the full amount of the request for high energy physics.

NUCLEAR PHYSICS

Appropriations, 1998	\$320,925,000
Budget estimate, 1999	332,600,000
Committee recommendation	332,600,000

The Committee has provided the full amount of the request for nuclear physics.

BIOLOGICAL AND ENVIRONMENTAL RESEARCH

Appropriations, 1998	\$406,710,000
Budget estimate, 1999	392,600,000
Committee recommendation	407,600,000

Low Dose Effects Program.—The Committee has provided \$20,000,000 for the Low Dose Effects Program. The Department is to develop a program with the goal to determine the biological effects of exposure to low doses of ionizing radiation by 2008. Within 120 days of enactment of this act, the Department is to submit to the Appropriations Committees of the House and Senate a plan and proposed budget for the next 5 years of this effort.

The Committee recommendation includes \$1,000,000 to begin planning for the marine mammal research and education center to be located at the Natural Energy Laboratory on the Island of Hawaii. The Committee is aware of the State of Hawaii's intent to contribute \$1,900,000 for this project.

BASIC ENERGY SCIENCES

Appropriations, 1998	\$668,240,000
Budget estimate, 1999	836,100,000
Committee recommendation	836,100,000

Spallation neutron source.—Despite significant budget pressures, the Committee recommends the full amount of the request for construction of the spallation neutron source. The Department of Energy's construction and operation of scientific user facilities sets it apart from any other Federal agency. The Committee encourages the Department's continued success in this regard, and will make every effort to provide the optimum annual funding to complete construction on schedule.

The Committee recommendation includes \$10,000,000 to continue the Department's Experimental Program to Stimulate Competitive Research [EPSCoR] Program.

OTHER ENERGY RESEARCH PROGRAMS

Appropriations, 1998	\$173,667,000
Budget estimate, 1999	182,900,000
Committee recommendation	172,260,000

Computational and technology research.—Due to budget pressure, the Committee recommends \$150,000,000 for computational and technology research, a reduction of \$10,640,000 from the request.

FUSION ENERGY SCIENCES

Appropriations, 1998	\$232,000,000
Budget estimate, 1999	228,160,000
Committee recommendation	232,000,000

The Committee has previously complemented the review and coordination provided to the magnetic fusion program by the Fusion Energy Sciences Advisory Board and its predecessor; the Fusion Energy Advisory Board. The Committee is aware of efforts within the domestic and international fusion community to redirect the program in light of the demise of the proposed \$11,000,000,000 international thermonuclear experimental reactor [ITER]; an inevitable decision given current and anticipated budgets. Three options are under consideration: a single machine strategy based on a more affordable ITER concept; a multiple machine strategy that would pursue parallel, phased, or sequential steps; and the possibility of deferring any decision about the next magnetic fusion facilities.

The Committee recommends that the Department, prior to committing to any future magnetic fusion program or facilities, conduct a broader review to determine which fusion technology or technologies the United States should pursue to achieve ignition and/or a fusion energy device.

The Department currently funds four fusion related technologies; pulsed-power, lasers, ion drivers, and magnetic fusion. The Department has been reluctant or unable to review those technologies as a group because they have different near-term objectives and are managed by different program offices. Regardless of these near-term and management differences, the Committee is aware that scientists within each program have an eye toward ignition and energy applications.

The Committee is well aware of the challenges entailed by a review of multiple programs with multiple and possibly competing technologies. However, the Department should conduct an encompassing review of all four technologies prior to making decisions about next steps toward fusion energy, specifically to consider non-magnetic alternatives. At the very least, the review should develop a roadmap that justifies the continued development of each technology.

The Committee is aware of a number of proposals for the decontamination and decommissioning of the Tokamak fusion test reactor [TFTR], the most expeditious of which could save the Department 3 years and \$25,000,000. In the Committee's view, this represents a clear opportunity for the Department to prove its ability to decontaminate and decommission a facility in a timely and efficient manner. The Department should report to the Committee within 180 days on the schedule and budget for the decommissioning and decontamination of the TFTR.

UNIVERSITY AND SCIENCE EDUCATION

The Committee recognizes the Department's unique ability to contribute to the preparation of the Nation's next generation of scientists and engineers. The Committee regrets that budget constraints preclude providing the \$15,000,000 requested for university and science education. The Committee endorses the Department's ongoing education initiatives funded through program accounts. While a line-item appropriation is not provided, the Committee encourages the Department to seek opportunities to continue to support work such as that performed by the Science and Technology Alliance.

DEPARTMENT OF ENERGY—Continued

[In thousands of dollars]

Project title	Current year enacted	Budget estimate	Committee recommendation
TOTAL, URANIUM SUPPLY AND ENRICHMENT ACTIVITIES			
NON-DEFENSE ENVIRONMENTAL MANAGEMENT			
Site closure	269,911	254,344	254,344
Site/project completion	113,950	97,248	97,248
Post 2006 completion	82,294	83,908	83,908
Science and technology		26,500	
Fast flux test facility standby/shutdown	30,904		31,200
Use of prior year balances			– 10,000
TOTAL, NON-DEFENSE ENVIRONMENTAL MANAGEMENT	497,059	462,000	456,700
URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND			
Decontamination and decommissioning	180,200	242,000	170,000
Uranium/thorium reimbursement	40,000	35,000	30,000
TOTAL, URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING	220,200	277,000	200,000
SCIENCE			
High energy physics:			
Research and technology	210,240	213,365	213,365
Facility operations	418,945	456,635	456,635
Construction:			
99–G–306 Wilson hall safety improvements, Fermilab		6,700	6,700
98–G–304 Neutrinos at the main injector, Fermilab	5,500	14,300	14,300
98–G–305 C-Zero area experimental hall, Fermilab	5,000		
97–G–303 Master substation upgrade, SLAC	9,400		
94–G–304 B-Factory, SLAC			

92–G–302 Fermilab main injector, Fermilab	30,950		
Subtotal, Construction	50,850	21,000	21,000
Subtotal, Facility operations	469,795	477,635	477,635
Total, High energy physics	680,035	691,000	691,000
Nuclear physics	261,525	315,980	315,980
Construction: 91–G–300 Relativistic heavy ion collider, BNL	59,400	16,620	16,620
Total, Nuclear physics	320,925	332,600	332,600
Biological and environmental research	406,710	392,600	407,600
Construction:			
94–E–339 Human genome lab, LBL			
91–EM–100 Environmental & molecular sciences laboratory, PNL, Richland, WA			
Subtotal, Construction			
Total, Biological and environmental research	406,710	392,600	407,600
Basic energy sciences:			
Materials sciences	392,475	417,216	417,216
Chemical sciences	199,933	209,582	209,582
Applied mathematical sciences			
Engineering and geosciences	41,371	44,413	44,413
Energy biosciences	27,461	32,489	32,489
Capital equipment			
Construction:			
99–E–334 Spallation Neutron Source, ORNL		128,400	128,400
GPE–400 General plant projects			
97–E–305 Accelerator and reactor improvements and modifications, various locations			
95–E–305 Accelerator improvement projects			
96–E–300 Combustion research facility, Phase II, SNL/L	7,000	4,000	4,000

DEPARTMENT OF ENERGY—Continued

[In thousands of dollars]

Project title	Current year enacted	Budget estimate	Committee recommendation
Subtotal, Construction	7,000	132,400	132,400
Total, Basic energy sciences	668,240	836,100	836,100
Other energy research:			
Computational and technology research	150,907	160,640	150,000
Energy research analyses	1,500	1,000	1,000
Program direction			
Multiprogram energy labs—facility support:			
Multiprogram general purpose facilities:			
Infrastructure support		1,160	1,160
Construction:			
MEL-001 Multiprogram energy laboratory infrastructure projects, various locations	7,259	14,924	14,924
95-E-301 Central heating plant rehabilitation, Phase I (ANL)	3,442		
95-E-303 Electrical safety rehab (PNL)			
95-E-310 Multiprogram laboratory rehabilitation, phase I (PNL)			
94-E-363 Roofing improvements (ORNL)	4,000	4,908	4,908
Subtotal, Multiprogram gen. purpose facilities	14,701	19,832	19,832
Environment, safety and health:			
Construction:			
96-E-333 Multiprogram energy laboratories upgrades, various locations	5,273	268	268
95-E-307 Fire safety imp. III (ANL)	718		
95-E-308 Sanitary system mods. II (BNL)	568		
95-E-309 Loss prevention upgrades (BNL)			
93-E-320 Fire and safety improvements, phase II (ANL)			

Subtotal, Environment, safety and health	6,559	268	268
Subtotal, Multiprogram energy labs—fac. support	21,260	21,260	21,260
Total, Other energy research	173,667	182,900	172,260
Fusion energy sciences program			232,000
University science education programs: Laboratory cooperative science centers		15,000	
Program direction	37,600	39,860	37,600
Subtotal, Science	2,287,177	2,490,060	2,709,160
Use of prior year SSC balances	– 35,000	– 7,600	– 7,600
Use of other prior year balances	– 13,800		– 12,000
General reduction for contractor training	– 2,669		
Use of prior year project balances			– 20,000
TOTAL, SCIENCE	2,235,708	2,482,460	2,669,560

DEPARTMENTAL ADMINISTRATION

Administrative operations:

Salaries and expenses:

Office of the Secretary	2,500	4,251	4,251
Board of contract appeals			722
Chief financial officer			22,200
Congressional and intergovernmental affairs			5,111
Economic impact and diversity			4,819
Field management			7,926
General counsel			19,500
Human resources and administration			97,000
Policy office			15,449
Public affairs			3,812
Subtotal, Salaries and expenses	2,500	4,251	180,790
General management—personnel compensation and benefits	101,695	106,210	