

Paducah, Kentucky. Title X of the 1992 Act also authorized use of a portion of the Fund to reimburse private licensees for the Federal government's share of the cost of cleaning up uranium and thorium processing sites.

The Committee recommends \$591,498,000 for activities funded from the Uranium Enrichment Decontamination and Decommissioning Fund, the same as the budget request. This amount includes \$571,498,000 for decontamination and decommissioning activities at the gaseous diffusion plants and \$20,000,000 for Title X uranium and thorium reimbursements.

RCRA closure.—The Committee expects the Department to complete the Resource Conservation and Recovery Act closure of building X-7725 by September 30, 2006, by any means feasible, within available funds.

SCIENCE

Appropriation, 2005	\$3,599,871,000
Budget estimate, 2006	3,462,718,000
Recommended, 2006	3,666,055,000
Comparison:	
Appropriation, 2005	+66,184,000
Budget estimate, 2006	+203,337,000

The Science account funds the Department's work on high energy physics, nuclear physics, biological and environmental sciences, basic energy sciences, advanced scientific computing, maintenance of the laboratories' physical infrastructure, fusion energy sciences, safeguards and security, science workforce development, and science program direction.

The Department of Energy is the largest financial supporter of research in the physical sciences. The essential role of DOE is often neglected in discussions of government science, yet DOE funding and facilities have supported major discoveries, including many that have resulted in Nobel prizes. Its initial work with nuclear reactors and particle accelerators has led DOE to support a wide range of government, academic, and industrial research by providing light sources and neutron sources for use in studying the structure of materials and processes at the atomic and subatomic scale. Researchers from diverse fields and backgrounds rely increasingly on the advanced capabilities provided by the DOE user facilities. Existing and planned new facilities will offer researchers the revolutionary ability to observe chemical reactions as they happen, including those that take place within living cells.

While DOE Science laboratories and researchers possess many multidisciplinary research capabilities, the unique niche that DOE fills is in the area of large research instruments ("big iron") such as accelerators, colliders, and most recently the Spallation Neutron Source. These projects are of such a scale, complexity, and cost that they exceed the capabilities of universities, private companies, and even other government agencies. The DOE Office of Science takes on these challenging, high-risk research projects, and while it does not always achieve its schedule and budget targets, this experience in managing high-risk science projects has helped shape its science activities. In many ways, the work of the DOE Office of Science complements the funding strengths of the National Science Foun-

dation and National Institutes of Health with their focus on providing grants to individual researchers and research teams. While DOE also makes grants and has committed to increasing use of agency-wide research announcements inviting open competition among universities, government labs, industry and others, often DOE is the provider of state-of-the-art user facilities—both research machines and computers—that are used by NSF and NIH grantees. The health and success of science programs at DOE is critical to the overall health of research and development in the United States. National security, both from an economic and a defense perspective, rests on a foundation grounded in the physical sciences, and depends on DOE's continued leadership in these fields.

The Committee was disappointed in the Department's budget request for the Office of Science in fiscal year 2006. The Committee recommendation is \$3,666,055,000, an increase of \$203,337,000 compared to the budget request and \$66,184,000 over the fiscal year 2005 enacted level. The Committee has provided additional funding for the Office of Science to address the following Committee priorities: high performance computing; additional operating time at Office of Science user facilities; and redirection of fusion funding to restore domestic fusion research that was displaced by the International Thermonuclear Experimental Reactor (ITER).

HIGH ENERGY PHYSICS

The Committee recommends a total of \$735,933,000 for high energy physics, an increase of \$22,000,000 over the budget request. With the proposed transfer of the Stanford Linear Accelerator Center (SLAC) to the Basic Energy Sciences account, the Fermi National Accelerator Laboratory will become the only remaining high energy physics national laboratory in the country. High energy physics is the cornerstone of our understanding of the physical universe, and the Department of Energy maintains unique capabilities that cannot be duplicated in the academic or private sector, or by any other federal agency. The Committee provides an additional \$22,000,000 to maintain high energy physics at the fiscal year 2005 enacted level. Of the additional funds, \$11,000,000 is provided for research on the next-generation international linear collider and \$11,000,000 is provided for upgrades to the neutrino research program. The Committee supports the Department's decision to maximize the operating time of its high energy physics user facilities during fiscal year 2006. The control level is at the High Energy Physics level.

NUCLEAR PHYSICS

The Committee recommendation for nuclear physics is \$408,341,000, an increase of \$37,600,000 over the budget request. An additional \$6,000,000 is provided to initiate a competitive down-select process for design and operations concepts for the Rare Isotope Accelerator, and an additional \$31,600,000 is provided to restore operating time of the user facilities in the Nuclear Physics program (i.e., RHIC, TJNAF, HRIBF, and ATLAS) to fiscal year 2005 levels.

BIOLOGICAL AND ENVIRONMENTAL RESEARCH

The Committee recommendation for biological and environmental research (BER) is \$525,688,000, an increase of \$70,000,000 over the budget request. The Committee approves the Department's decision to maintain the operation of BER user facilities at fiscal year 2005 levels. Within available funds, the Department shall continue to fund the Savannah River Ecology Laboratory until the expiration of the current contract. The Committee recommendation provides an additional \$70,000,000, with \$35,000,000 for Congressionally-directed university and hospital earmarks and \$35,000,000 for Medical Applications and Measurement Science. Congressionally-directed projects are shown in the table below.

Congressionally Directed Office of Science Projects

Project	Committee Recommended
Science building at Waubonsee Community College (IL)	\$2,000,000
Univ. of Oklahoma Center Applications Single-Walled Nanotubes (OK)	1,000,000
Michigan Research Institute Life Science Research Center (MI)	850,000
Univ. of Arizona Environmental and Natural Resources Phase II (AZ)	750,000
Children's Hospital of Illinois (IL)	500,000
Cleveland Clinic Brain Mapping (OH)	1,000,000
Hampton University Canter Treatment Center (VA)	500,000
Saratoga Hospital Radiation Therapy Center (NY)	750,000
Environmental System Center at Syracuse University (NY)	700,000
Northern Virginia Comm. College training biotechnology workers (VA)	500,000
University of South Alabama Center Research Institute (AL)	500,000
Virginia Commonwealth University Massey Cancer Center (VA)	1,000,000
Alvernia College for a Science and Health Building (PA)	500,000
Burpee Museum of Natural History (IL)	500,000
Rockford Health Council (IL)	700,000
Roswell Park Cancer Center (NY)	250,000
National Polymer Center at the University of Akron (OH)	500,000
George Mason University research against Biological Agents (VA)	1,000,000
Biological and Environmental Center at Mystic Aquarium (CT)	500,000
Kern Medical Center to purchase and install MRI machine (CA)	500,000
Western Michigan University Geosciences Initiative (MI)	100,000
ORNL Supercomputer Connectivity NextEdge Technology Park (TN)	900,000
AVETeC data mamt.electronics and comm. NextEdge Tech.Park (OH)	2,100,000
Duchenne Muscular Dystrophy research Univ. of Washington School (WA)	200,000
Duchenne Muscular Dystrophy research Children's National Medical Ctr. (DC)	200,000
Ohio State University for Earth University (OH)	250,000
Loma Linda University Medical Center (CA)	1,250,000
SUNY IT Nano-Bio-Molecular Technical Incubator (NY)	500,000
Baylor University Lake Whitney Assessment (TX)	500,000
Centenary College laboratory space (NJ)	500,000
Notre Dame Ecological Genomics Research Institute (IN)	1,750,000
Inland Water Environmental Institute (ID,WA,UT)	500,000
St. Francis Science Center (IN)	250,000
Medical Research and Robotics, University of Southern California (CA)	1,000,000
Hampshire College National Center for Science Education (MA)	500,000
Pioneer Valley Life Science Initiative Univ. of Massachusetts (MA)	500,000
MidAmerica Nazarene Univ. nursing biological science program (KS)	500,000
Westminster College Science Center (UT)	500,000
City College of San Francisco-Health Related Equipment (CA)	500,000
Science South Development (SC)	500,000
St. Joseph Science Center (PA)	500,000
University North Carolina Biomedical Imaging (NC)	500,000
Augsburg College (MN)	750,000
Morehouse School of Medicine (GA)	750,000
Jersey City Medical Center (NJ)	750,000
University of Rochester James P. Wilmot Cancer Center (NY)	750,000
Bronx Community College Center for Sustainable Energy (NY)	500,000
University of Chicago Comer Children's Hospital (IL)	500,000
Martha's Vineyard Hospital (MA)	500,000
Joint Environmental Stewardship SUNY New Paltz and Ulster Comm.College (NY)	500,000
Central Arkansas Radiation Therapy Institute/Mountain Home (AR)	500,000
Children Hospital of LA Proteomics Core and Combinational Chemistry (CA)	500,000
Wake Forest University Institute for Regenerative Medicine (VA)	500,000

BASIC ENERGY SCIENCES

The Committee recommendation for Basic Energy Sciences is \$1,173,149,000, an increase of \$27,132,000 over the budget request. For purposes of reprogramming during fiscal year 2006, the Department may allocate funding among all operating accounts within Basic Energy Sciences, consistent with the reprogramming guidelines outlined earlier in this report.

Research.—The Committee recommendation includes \$772,025,000 for materials sciences and engineering, and \$223,051,000 for chemical sciences, geosciences, and energy biosciences. An additional \$19,737,000 is provided to maintain operating time on the Basic Energy Sciences user facilities at fiscal year 2005 levels, and an additional \$7,395,000 is provided to restore university grants for core research in the basic energy sciences. The Committee recommendation funds nanoscale science research and the science research portion of the hydrogen initiative at the requested levels. Also included within this account is \$7,280,000 for the Experimental Program to Stimulate Competitive Research (EPSCoR), the same as the budget request.

Construction.—The Committee recommendation includes \$178,073,000 for Basic Energy Sciences construction projects, the same as the requested amount. The Committee recommendation provides the requested funding of: \$41,744,000 for the Spallation Neutron Source (99-E-334) at Oak Ridge National Laboratory; \$2,544,000 for Title I and Title II design work (03-SC-002) and \$83,000,000 to initiate construction (05-R-320) for the Linac Coherent Light Source at the Stanford Linear Accelerator Center; \$36,553,000 for the Center for Functional Nanomaterials (05-R-321) at Brookhaven National Laboratory; \$9,606,000 for the Molecular Foundry (04-R-313) at Lawrence Berkeley National Laboratory; and \$4,626,000 for the Center for Integrated Nanotechnologies (03-R-313) at Los Alamos and Sandia National Laboratories.

ADVANCED SCIENTIFIC COMPUTING RESEARCH

The Committee recommendation is \$246,055,000, an increase of \$39,000,000 over the budget request. The additional \$39,000,000 is provided to support the Office of Science initiative to develop the hardware, software, and applied mathematics necessary for a leadership-class supercomputer to meet scientific computation needs; not more than \$25,000,000 of this increase should be dedicated to hardware, and \$9,000,000 of the total increase should be dedicated to competitive university research grants. The Committee is disappointed that the Department's fiscal year 2006 budget request did not preserve the increases that Congress provided for this purpose during the past two fiscal years. Consistent with guidance provided in prior years, the Committee has chosen not to earmark these additional funds for a particular laboratory or a particular technology. However, the Committee expects the Department to make full use of the laboratory-industry capabilities that have already been selected competitively in previous years and not "reinvent the wheel" each fiscal year.

FUSION ENERGY SCIENCES

The Committee recommendation for fusion energy sciences is \$296,155,000, an increase of \$5,605,000 over the budget request but with a significant redirection of funds as outlined below. The Committee is concerned that two-thirds of the proposed increase for the International Thermonuclear Experimental Reactor (ITER) would be achieved by reducing domestic fusion research and operating time on domestic user facilities. Under the proposed fiscal year 2006 budget, operating time at the three major fusion research facilities (DIII-D, Alcator C-Mod, and NSTX) would be reduced from 48 weeks in fiscal year 2005 to a total of only 17 weeks in fiscal year 2006. If the United States expects to be a serious contributor to international fusion research in general and to ITER in particular, the Nation needs to maintain strong domestic research programs and user facilities to train the next generation of fusion scientists and engineers. The Department's proposal to increase support for ITER at the expense of domestic fusion research is unwise and unacceptable. Such an approach is not only short-sighted, but inconsistent with prior Congressional guidance. Therefore, the Committee directs the Department to utilize \$29,900,000 of funding proposed for ITER and the additional \$5,605,000 to restore U.S.-based fusion funding to fiscal year 2005 levels as follows: \$7,300,000 for high performance materials for fusion; \$14,305,000 to restore operation of the three major user facilities to fiscal year 2005 operating levels; \$7,200,000 for intense heavy ion beams and fast ignition studies; \$5,100,000 for compact stellarators and small-scale experiments; and \$1,600,000 for theory. As in previous years, the Committee directs the Department to fund the U.S. share of ITER through additional resources rather than through reductions to domestic fusion research or to other Office of Science programs. If the Department does not follow this guidance in its fiscal year 2007 budget submission, the Committee is prepared to eliminate all U.S. funding for the ITER project in the future.

SCIENCE LABORATORIES INFRASTRUCTURE

The Committee recommendation provides a total of \$42,105,000 for Science Laboratories Infrastructure, an increase of \$2,000,000 over the budget request. The additional funds are provided to complete PED and initiate construction for project 04-05 MEL 001-046, the capability replacement laboratory at PNNL. The Committee expects the Department to request sufficient funds in fiscal year 2007 to have this replacement facility available for occupancy by 2009. Within available funds, the Committee directs the Department to continue to make PILT payments associated with Argonne National Laboratory at the fiscal year 2005 level.

SAFEGUARDS AND SECURITY

The Committee recommends \$74,317,000, the same as the budget request, to meet additional safeguards and security requirements at Office of Science facilities.

SCIENCE WORKFORCE DEVELOPMENT

The Committee provides \$7,192,000 for Workforce Development for Teachers and Scientists in fiscal year 2006, the same as the requested amount.

SCIENCE PROGRAM DIRECTION

The Committee recommendation is \$162,725,000 for Science program direction, the same as the budget request. This amount includes: \$92,593,000 for program direction at DOE field offices and \$70,132,000 for program direction at DOE headquarters. The control level for fiscal year 2006 is at the program account level of Science Program Direction.

FUNDING ADJUSTMENTS

The Committee recommendation includes an offset of \$5,605,000 for the safeguards and security charge for reimbursable work, as proposed in the budget request.

NUCLEAR WASTE DISPOSAL

Appropriation, 2005	\$343,232,000
Budget estimate, 2006	300,000,000
Recommended, 2006	310,000,000
Comparison:	
Appropriation, 2005	- 33,232,000
Budget estimate, 2006	+10,000,000

The Department of Energy requested a total of \$651,447,000 for work on the Yucca Mountain nuclear waste repository in fiscal year 2006, \$300,000,000 for Nuclear Waste Disposal and \$351,447,000 for Defense Nuclear Waste Disposal. According to the Department's budget justification, these requested funds will be sufficient to maintain the schedule for the December 2005 submission of a repository license application to the Nuclear Regulatory Commission, and to continue the scientific and engineering work to defend that license application and to prepare for design and construction of the repository.

At this time last year, the Department was still on track to open the repository in 2010. However, several events have combined to push that date out to 2012, at the earliest. In July 2004, the U.S. Court of Appeals for the District of Columbia Circuit vacated the 10,000-year radiation standard for the repository promulgated by the Environmental Protection Agency. Also during the summer of 2004, the Nuclear Regulatory Commission invalidated the Department's initial certification of documentation for the Licensing Support Network (LSN). Most recently, the Department discovered that certain documents related to the quality assurance of water modeling for the repository may have been falsified by employees of the U.S. Geological Survey. Underlying these technical and policy challenges, Congress has consistently underfunded the repository program in recent years. In fiscal year 2005, the budget request was for \$880,000,000, but Congress ultimately provided only \$572,384,000 for the program.

The net result is that the date for opening the Yucca Mountain repository continues to recede into the future. Indications suggest

DEPARTMENT OF ENERGY
(AMOUNTS IN THOUSANDS)

	FY 2005 Enacted	FY 2006 Request	House Recommended

Subtotal, FOSSIL ENERGY RESEARCH AND DEVELOPMENT	571,854	491,456	502,467
Advance appropriations.....	---	257,000	---

Total, FOSSIL ENERGY R&D INCLUDING ADVANCES.	571,854	748,456	502,467
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NAVAL PETROLEUM AND OIL SHALE RESERVES.....	17,750	18,500	18,500
ELK HILLS SCHOOL LANDS FUNDS.....	72,000	84,000	84,000
STRATEGIC PETROLEUM RESERVE.....	169,710	166,000	166,000
NORTHEAST HOME HEATING OIL RESERVE.....	4,930	---	---
ENERGY INFORMATION ADMINISTRATION.....	83,819	85,926	86,426
NON-DEFENSE ENVIRONMENTAL CLEANUP			
West Valley Demonstration Project.....	73,628	77,100	77,100
Gaseous Diffusion Plants.....	143,962	45,528	45,528
Depleted Uranium Hexafluoride Conversion, 02-U-101....	99,200	85,803	70,803
Fast Flux Test Reactor Facility (WA).....	45,715	46,113	41,113
Small Sites:			
Argonne National Lab.....	785	10,487	10,487
Brookhaven National Lab.....	42,316	34,328	34,328
Idaho National Lab.....	---	5,274	5,274
Consolidated Business Center:			
California Site support.....	98	100	100
Inhalation Toxicology Lab.....	487	305	305
Lawrence Berkeley National Lab.....	4,038	3,900	3,900
Stanford Linear Accelerator Center.....	2,480	3,500	3,500
Energy Technology Engineering Center.....	18,238	9,000	9,000
Los Alamos National Lab.....	447	490	490
Lab for Energy-Related Health Research.....	496	---	---
Moab.....	7,711	28,006	18,006

Subtotal, small sites.....	77,096	95,390	85,390

TOTAL, NON-DEFENSE ENVIRONMENTAL CLEANUP.....	439,601	349,934	319,934
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URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND			
Decontamination and decommissioning.....	415,655	571,498	571,498
Uranium/thorium reimbursement.....	79,360	20,000	20,000

TOTAL, URANIUM ENRICHMENT D&D FUND.....	495,015	591,498	591,498
SCIENCE			
High energy physics			
Proton accelerator-based physics.....	401,120	387,093	398,093
Electron accelerator-based physics.....	143,929	132,822	132,822
Non-accelerator physics.....	46,934	38,589	38,589
Theoretical physics.....	48,995	49,103	49,103
Advanced technology R&D.....	94,721	106,326	117,326

Subtotal.....	735,699	713,933	735,933
Construction			
98-G-304 Neutrinos at the main injector, Fermilab.....	745	---	---

Total, High energy physics.....	736,444	713,933	735,933
Nuclear physics.....			
Construction	404,778	368,741	406,341
06-SC-02 Project engineering and design (PED),			

DEPARTMENT OF ENERGY
(AMOUNTS IN THOUSANDS)

	FY 2005 Enacted	FY 2006 Request	House Recommended
Electron beam ion source, Brookhaven National Laboratory, Upton, NY.....	---	2,000	2,000
Total, Nuclear physics.....	404,778	370,741	408,341
Biological and environmental research.....	571,992	455,688	525,688
Construction			
05-SC-004 Project engineering and design (PED), facility for the production and characterization of proteins and molecular tags.....	9,920	---	---
Basic energy sciences			
Research			
Materials sciences and engineering research.....	635,132	746,143	772,025
Chemical sciences, geosciences and energy biosciences.....	239,475	221,801	223,051
Subtotal, Research.....	874,607	967,944	995,076
Construction			
05-R-320 LINAC coherent light source (LCLS).....	29,760	83,000	83,000
05-R-321 Center for functional nanomaterials (BNL)	18,317	36,553	36,553
04-R-313 The molecular foundry (LBNL).....	31,828	9,606	9,606
03-SC-002 Project engineering & design (PED) SLAC.	19,914	2,544	2,544
03-R-312 Center for nanophase materials sciences, ORNL.....	17,669	---	---
03-R-313 Center for Integrated Nanotechnology.....	30,650	4,626	4,626
02-SC-002 Project engineering and design (VL).....	1,996	---	---
99-E-334 Spallation neutron source (ORNL).....	79,891	41,744	41,744
Subtotal, Construction.....	230,025	178,073	178,073
Total, Basic energy sciences.....	1,104,632	1,146,017	1,173,149
Advanced scientific computing research.....	232,468	207,055	246,055
Science laboratories infrastructure			
Laboratories facilities support			
Infrastructure support.....	1,752	1,520	1,520
General plant projects.....	---	3,000	3,000
Construction			
04-SC-001 Project engineering and design (PED), various locations.....	4,960	3,000	3,000
03-SC-001 Science laboratories infrastructure MEL-001 Multiprogram energy laboratory infrastructure projects, various locations.....	19,236	12,869	14,869
Subtotal, Construction.....	24,196	15,869	17,869
Subtotal, Laboratories facilities support.....	25,948	20,389	22,389
Oak Ridge landlord.....	5,039	5,079	5,079
Excess facilities disposal.....	6,051	14,637	14,637
Safety-related corrective actions.....	4,960	---	---
Total, Science laboratories infrastructure.....	41,998	40,105	42,105

DEPARTMENT OF ENERGY
(AMOUNTS IN THOUSANDS)

	FY 2005 Enacted	FY 2006 Request	House Recommended
Fusion energy sciences program.....	273,903	290,550	296,155
Safeguards and security.....	72,773	74,317	74,317
Workforce development for teachers and scientists.....	7,599	7,192	7,192
Science program direction			
Field offices.....	88,809	92,593	92,593
Headquarters.....	65,222	70,132	70,132
Total, Science program direction.....	154,031	162,725	162,725
Subtotal, Science.....	3,610,538	3,468,323	3,671,660
Use of prior year balances.....	-5,062	---	---
Less security charge for reimbursable work.....	-5,605	-5,605	-5,605
TOTAL, SCIENCE.....	3,599,871	3,462,718	3,666,055
NUCLEAR WASTE DISPOSAL			
Repository program.....	263,872	218,536	228,536
Program direction.....	79,360	81,464	81,464
TOTAL, NUCLEAR WASTE DISPOSAL.....	343,232	300,000	310,000
DEPARTMENTAL ADMINISTRATION			
Administrative operations			
Salaries and expenses			
Office of the Secretary.....	4,644	5,399	4,843
Board of contract appeals.....	648	648	680
Chief information officer.....	37,967	51,122	39,865
Congressional and intergovernmental affairs.....	4,826	5,089	5,067
Economic impact and diversity.....	5,099	5,352	5,352
General counsel.....	21,774	24,217	22,780
Office of Management, Budget and Evaluation.....	106,850	111,806	110,300
Policy and international affairs.....	14,993	18,844	15,743
Public affairs.....	2,459	4,504	3,566
Subtotal, Salaries and expenses.....	199,260	226,981	208,196
Program support			
Minority economic impact.....	823	830	823
Policy analysis and system studies.....	392	395	392
Environmental policy studies.....	562	567	562
Cybersecurity and secure communications.....	24,733	32,000	24,733
Corporate management information program.....	31,881	23,055	23,055
Subtotal, Program support.....	58,391	56,847	49,565
Competitive sourcing initiative (A-76).....	2,480	3,000	3,000
Total, Administrative operations.....	260,131	286,828	260,781
Cost of work for others.....	71,048	80,723	80,723
Subtotal, Departmental Administration.....	331,179	367,551	341,484
Funding from other defense activities.....	-91,700	-87,575	-87,575
Total, Departmental administration (gross).....	239,479	279,976	253,909