DOE/ME-0047
Volume 2

Department of Energy
FY 2006 Congressional Budget Request

Other Defense Activities

Security & Performance Assurance

Environment, Safety & Health

Legacy Management

Nuclear Energy

Defense Related Administrative Support

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Safeguards & Security Crosscut

February 2005

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The Department of Energy's FY 2005 Congressional Budget justification is available on the Office of Management, Budget and Evaluation/CFO homepage at http://www.mbe.doe.gov/budget/

Department of Energy
Appropriation Account Summary
(dollars in thousands - OMB Scoring)

	FY 2004 Comparable Approp	FY 2005 Comparable Approp	FY 2006 Request to Congress	FY 2006 vs. FY 2005	
Energy And Water Development					
Energy Programs					
Energy supply	794,897	932,319	902,674	-29,645	-3.2%
Non-Defense site acceleration completion	167,272	157,316	172,400	15,084	+9.6%
Uranium enrichment D&D fund	414,027	495,015	591,498	96,483	+19.5%
Non-Defense environmental services	307,795	288,966	177,534	-111,432	-38.6%
Science	3,536,373	3,599,546	3,462,718	-136,828	-3.8%
Nuclear waste disposal	188,879	343,232	300,000	-43,232	-12.6%
Departmental administration	109,276	119,284	130,259	10,975	+9.2%
Inspector general	39,229	41,176	43,000	1,824	+4.4%
Total, Energy Programs	5,557,748	5,976,854	5,780,083	-196,771	-3.3%
Atomic Energy Defense Activities					
National nuclear security administration:					
Weapons activities	6,447,159	6,583,350	6,630,133	46,783	+0.7%
Defense nuclear nonproliferation	1,367,709	1,422,103	1,637,239	215,136	+15.1%
Naval reactors	761,872	801,437	786,000	-15,437	-1.9%
Office of the administrator	352,949	357,051	343,869	-13,182	-3.7%
Total, National nuclear security administration	8,929,689	9,163,941	9,397,241	233,300	+2.5%
Environmental and other defense activities:					
Defense site acceleration completion	5,433,423	5,725,935	5,183,713	-542,222	-9.5%
Defense environmental services	895,015	845,704	831,331	-14,373	-1.7%
Other defense activities	675,824	672,590	635,998	-36,592	-5.4%
Defense nuclear waste disposal	387,699	229,152	351,447	122,295	+53.4%
Total, Environmental & other defense activities	7,391,961	7,473,381	7,002,489	-470,892	-6.3%
Total, Atomic Energy Defense Activities	16,321,650	16,637,322	16,399,730	-237,592	-1.4%
Defense EM privatization (rescission)	-15,329	——	——	——	——
Power marketing administrations:					
Southeastern power administration	5,070	5,158	——	-5,158	-100.0%
Southwestern power administration	28,431	29,117	3,166	-25,951	-89.1%
Western area power administration	176,873	171,715	53,957	-117,758	-68.6%
Falcon & Amistad operating & maintenance fund	2,625	2,804	——	-2,804	-100.0%
Total, Power marketing administrations	212,999	208,794	57,123	-151,671	-72.6%
Federal energy regulatory commission	——	——	——	——	——
Subtotal, Energy And Water Development Appropriation	22,077,068	22,822,970	22,236,936	-586,034	-2.6%
Uranium enrichment D&D fund discretionary payments	-449,333	-459,296	-451,000	8,296	+1.8%
Excess fees and recoveries, FERC	-19,000	-15,000	-13,000	2,000	+13.3%
Colorado River Basins	1,458	-23,000	-23,000	——	——
Total, Energy And Water Development	**21,610,193**	**22,325,674**	**21,749,936**	**-575,738**	**-2.6%**

Department of Energy
Appropriation Account Summary
(dollars in thousands - OMB Scoring)

	FY 2004 Comparable Approp	FY 2005 Comparable Approp	FY 2006 Request to Congress	FY 2006 vs. FY 2005	
Interior And Related Agencies					
Fossil energy research and development	658,981	571,854	491,456	-80,398	-14.1%
Naval petroleum and oil shale reserves	17,995	17,750	18,500	750	+4.2%
Elk Hills school lands fund	36,000	36,000	84,000	48,000	+133.3%
Energy conservation	867,967	868,234	846,772	-21,462	-2.5%
Economic regulation	1,034	——	——	——	——
Strategic petroleum reserve	170,948	169,710	166,000	-3,710	-2.2%
Northeast home heating oil reserve	4,939	4,930	——	-4,930	-100.0%
Energy information administration	81,100	83,819	85,926	2,107	+2.5%
Subtotal, Interior Accounts	1,838,964	1,752,297	1,692,654	-59,643	-3.4%
Clean coal technology	-98,000	-160,000	——	160,000	+100.0%
Total, Interior And Related Agencies	**1,740,964**	**1,592,297**	**1,692,654**	**100,357**	**+6.3%**
Total, Discretionary Funding	**23,351,157**	**23,917,971**	**23,442,590**	**-475,381**	**-2.0%**

Other Defense Activities

Other Defense Activities

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Other Defense Activities

Appropriation Language

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for atomic energy defense, other defense activities, and classified activities, in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, **[**$692,691,000**]** *and the purchase of not to exceed ten passenger motor vehicles for replacement only, including not to exceed two buses; $635,998,000*, to remain available until expended. *(Energy and Water Development Appropriations Act, 2005.)*

Explanation of Change

Changes reflect revisions to funding amounts and fiscal year references.

Department of Energy
Appropriation Summary by Program

(dollars in thousands)

	FY 2004 Comparable Approp	FY 2005 Comparable Approp	FY 2006 Request to Congress	FY 2006 vs. FY 2005	
Other Defense Activities					
Security and Safety Performance Assurance	311,242	306,099	301,095	-5,004	-1.6%
Environment, Safety and Health	143,166	128,603	77,029	-51,574	-40.1%
Office of Legacy Management	35,472	46,520	45,076	-1,444	-3.1%
Nuclear Energy	111,618	113,388	123,873	10,485	+9.2%
Defense Related Administrative Support	86,168	91,700	87,575	-4,125	-4.5%
Office of Hearings and Appeals	3,775	4,283	4,353	70	+1.6%
Subtotal, Other Defense Activities	691,441	690,593	639,001	-51,592	-7.5%
Use of Prior-Year Balances and Other Adjustments	-15,617	-18,003	-3,003	15,000	+83.3%
Total, Other Defense Activities	675,824	672,590	635,998	-36,592	-5.4%

Other Defense Activities
Office of Security and Safety Performance Assurance

Overview
Appropriation Summary by Program

	FY 2004 Comparable Appropriation	FY 2005 Comparable Appropriation	FY 2006 Request
Other Defense Activities			
Office of Security and Safety Performance Assurance	304,467[a,b]	306,099[b]	301,095
Total, Other Defense Activities	304,467[a,b]	306,099[b]	301,095

Preface

The Office of Security and Safety Performance Assurance (SSA) is responsible for the development, promulgation, and evaluation of security programs, and the oversight of safeguards and security; cyber security; emergency management; and environment, safety, and health programs throughout the Department. SSA is comprised of the Office of Security (SO), which develops and assists in the implementation of strategies, policies, and technology pertaining to the protection of national security and other critical assets entrusted to the Department; and the Office of Independent Oversight and Performance Assurance (OA), which provides information and analysis regarding the effectiveness, vulnerabilities, and trends of the Department's security, safety, and other programs and functions of interest to Departmental senior management and other stakeholders. SSA also provides administrative support to the Departmental Representative (DR) to the Defense Nuclear Facilities Safety Board (DNFSB).

Within the Other Defense Activities appropriation, the SSA program has three subprograms: Nuclear Safeguards and Security (NSS) (three key activities: Operational Support; Technology and Systems Development; and Classification/Declassification); Security Investigations (SI) (three key activities: Federal Bureau of Investigation, Office of Personnel Management, Related Security Investigations); and Program Direction.

This Overview will describe Strategic Context, Mission, Benefits, and Significant Program Shifts. These items together put this appropriation in perspective.

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[a] Reflects reduction for FY 2004 Omnibus Rescission $1,357,336.
[b] Reflects comparability adjustment to transfer $11,495,000 in FY 2004 and $14,491,000 in FY 2005 from the Office of Security and Safety Performance Assurance to DOE/NNSA for support of the DOE Operations Center.

Strategic Context

Following publication of the Administration's National Energy Policy, the Department developed a Strategic Plan that defines its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. SSA performs critical functions, which directly support the mission of the Department. These functions include developing and promulgating security policies, training, and technology throughout DOE; assisting the U.S. and other Governments track the use and movement of nuclear material; and providing information to the Secretary and other DOE managers, regarding the status of the Department's performance of security and safety programs.

Mission

SSA provides for the development, promulgation, and evaluation of safeguards and security programs, and the oversight of safeguards and security; cyber security; emergency management; and environment, safety, and health programs throughout the Department; and provides security-related services to DOE Headquarters. At the corporate level, SSA coordinates roles and responsibilities and provides for increased communication between, and efficient management of, SO and OA. SSA also provides administrative support to the Departmental Representative (DR) to the DNFSB.

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. SSA performs critical functions that directly support the mission of the Department. These functions include:

- developing and promulgating clear and consistent safeguards and security strategies and policies governing the protection of national security and other critical assets entrusted to the Department;
- developing and providing standardized, comprehensive safeguards and security and safety training throughout the Department;
- managing the Department's protective force for DOE facilities in the National Capital Area (NCA), including Continuity of Operations (COOP) and Continuity of Government (COG) Plans;
- providing executive protective services for the Department;
- developing and deploying security technology;
- developing and implementing Department-wide nuclear materials tracking and accounting programs;
- assisting other Governmental and Departmental organizations in the mission of accounting for and assuring the security of nuclear material throughout the world;
- managing the Department's security investigations budget and personnel security programs associated with providing access authorizations to DOE Federal and contract personnel;

- managing the Government-wide program to classify and declassify nuclear weapons-related technology and implement the requirements of Executive Order (EO) 12598 regarding the classification and declassification of information that is vital to national security;
- conducting performance appraisals to verify that the Department's safeguards and security interests are protected; the Department can effectively respond to emergencies; and site workers, the public, and the environment are protected from hazardous operations and materials; and,
- providing support for centralized leadership in resolving DNFSB issues.

Benefits

DOE must implement effective safeguards and security programs in an increasingly challenging threat environment especially post 9-11. The primary focus of SSA is on effectively and efficiently implementing protection programs that fully respond to the May 2003 design basis threat (DBT) policy by addressing programmatic and technical uncertainties and establishing cooperation and useful dialog between managers and security professionals at all levels. To this end, and in support of the recently announced unprecedented security initiatives by the Secretary, SSA is: 1) streamlining existing security policies to remove ambiguity in roles, responsibilities, and requirements; eliminate conflicts; and incorporate recent updates; 2) improving the development, deployment, and use of innovative security technology to transition from administrative to engineering controls; 3) advancing the professional development of DOE security and safety personnel to ensure that their training is responsive to the needs of the DOE community by developing new courses based on evolving threats,; 4) increasing the capabilities and responsiveness of the protective force; and 5) improving the defensive posture of DOE .

SSA also identifies and reports to senior DOE managers on site-specific and Department-wide issues regarding nuclear safeguards and security, cyber security, emergency management, environment, safety, and health, and other programs using an efficient, systematic oversight process that emphasizes performance and performance testing; conducts follow-up activities to determine the effectiveness of corrective actions; and promotes line management self-assessment activities, thereby enhancing overall performance in these program areas. In addition, SSA provides effective cross-organizational leadership in resolving DNFSB-related technical and management issues necessary to ensure public health and safety.

Major FY 2004 Achievements

Formation of SSA: On December 4, 2003, the Secretary of Energy announced the establishment of the Office of Security and Safety Performance Assurance (SSA). This new Office combines the Office of Security (SO) and the Office of Independent Oversight and Performance Assurance (OA) and facilitates better coordination of the roles of independent oversight and security policy organizations within the Department. A complete programmatic review of SSA (mission, function, roles, and responsibilities) was conducted in December 2003, and all significant program and organizational restructuring and realignments were completed by April 20, 2004.

National Training Center (NTC) (formerly the Nonproliferation and National Security Institute): The NTC was established to be the Department's leader in state-of-the-art safeguards and security training.

SSA conducted a thorough examination of the NTC, including contract administration and curriculum design and development in FY 2004. The Defense Contract Audit Agency conducted a review of NTC finance and accounting at the request of SSA. Following these reviews, the NTC was refocused to meet the Department's security training needs.

Significant Program Shifts

The FY 2006 budget reflects the combining of the Office of Security and the Office of Independent Oversight and Performance Assurance into the Office of Security and Safety Performance Assurance (SSA). As a result of the formation of SSA, and at the direction of the Secretary, the Emergency Operations Center and related planning, communications, exercises, and simulation functions were realigned from SSA to the National Nuclear Security Administration (NNSA) Office of Emergency Operations. The realignment resulted in a transfer of funding and 27 FTEs from SSA to NNSA and is reflected in the total funding and FTE count for SSA.

The FY 2005 Congressional Request for the Office of Security's Security Investigations subprogram was $53,554,000. SSA, of which the Office of Security is now a part, is transferring $3,674,000 from the Security Investigations subprogram in FY 2005 to enhance the security training program at the National Training Center (NTC). The FY 2005 appropriations were further reduced by a total of $5,319,360 due to a conference reduction ($4,960,000) and Omnibus Rescission ($359,360).

The National Defense Authorization Act (NDAA) for FY 2004 (H.R. 1588, Section 3151) removed the provision for investigation requests for individuals in the Personnel Security Assurance Program (PSAP) and Personnel Assurance Program (PAP) to be conducted by the Federal Bureau of Investigation (FBI). These investigations will now be conducted by the Office of Personnel Management (OPM) which are less expensive than the FBI investigations. There is a one-time savings in FY 2005 of $3,674,000 due to this policy change. Revised case projections and funding amounts are displayed in this budget submission to reflect the expected investigation activity in FY 2005.

SSA is taking on significant new projects and activities to strengthen the safeguards and security posture and implement the new Design Basis Threat (DBT). The Department's safeguards and security training academy, the National Training Center (NTC), will prepare and conduct courses to develop and analyze vulnerability assessments, promote safeguards and security self-evaluations, and enhance technical and cognitive skill sets to implement the DBT.

Other Defense Activities
Office of Security and Safety Performance Assurance (SSA)

Funding by Site by Program

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Chicago Operations Office					
Argonne National Laboratory	750	1,000	750	-250	-25.0%
Chicago Operations Office	613	1,655	2,147	+492	+29.7%
New Brunswick Laboratory	7,069	6,537	6,774	+237	+3.6%
Pacific Northwest National Laboratory	3,864	3,964	3,481	-483	-12.2%
Total, Chicago Operations Office	12,296	13,156	13,152	-4	0.0%
Idaho Operations Office					
Idaho National Engineering and Environmental Laboratory	1,252	1,712	0	-1,712	-100.0%
Idaho National Laboratory	0	0	1,447	+1,447	+100.0%
Idaho Operations Office	1,117	1,084	1,258	+174	+16.1%
Total, Idaho Operations Office	2,369	2,796	2,705	-91	-3.3%
Kansas City Site Office	0	215	15	-200	-93.0%
Livermore Site Office	2,276	2,042	1,915	-127	-6.2%
Los Alamos Site Office	5,695	3,482	3,377	-105	-3.0%
Nevada Site Office	2,206	1,413	1,563	+150	+10.6%
NNSA Service Center					
NNSA Service Center	34,741	26,855	29,555	+2,700	+10.1%
Office of Secure Transportation	250	250	250	0	0.0%
Total, NNSA Service Center	34,991	27,105	29,805	+2,700	+10.0%
Oak Ridge Operations Office					
Oak Ridge Institute for Science & Education	838	650	500	-150	-23.1%
Oak Ridge National Laboratory	10	0	0	0	0.0%
Oak Ridge Operations Office	3,329	3,208	3,462	+254	+7.9%
Total, Oak Ridge Operations Office	4,177	3,858	3,962	+104	+2.7%
Pantex Site Office	5	25	9	-16	-64.0%
Pittsburgh Naval Reactors	447	460	441	-19	-4.1%

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Richland Operations Office					
Hanford Site	89	89	89	0	0.0%
Richland Operations Office	2,302	742	514	-228	-30.7%
Total, Richland Operations Office	2,391	831	603	-228	-27.4%
Sandia Site Office	11,990	9,964	8,977	-987	-9.9%
Savannah River Operations office					
Savannah River Operations Office	8,271	8,281	7,360	-921	-11.1%
Savannah River Site	2,436	2,450	2,450	0	0.0%
Total, Savannah River Operations Office	10,707	10,731	9,810	-921	-8.6%
Schenectady Naval Reactors	30	22	32	+10	+45.5%
Washington Headquarters					
Office of Scientific and Tech Information	295	490	240	-250	-51.0%
National Training Center	13,409	12,375	15,675	+3,300	+26.7%
Washington Headquarters	205,656	216,134	208,214	-7,920	-3.7%
Total, Washington Headquarters	219,360	228,999	224,129	-4,870	-2.1%
Y-12 Site Office	1,590	1,000	600	-400	-40.0%
Total, Other Defense Activities	304,467	306,099	301,095	-5,004	-1.6%

Site Description

Chicago Operations Office

Argonne National Laboratory (ANL)

Nuclear Safeguards and Security: ANL supports tasks associated with the Foreign Ownership, Control, or Influence (FOCI) program by providing DOE/NNSA a computer-based system (e-FOCI) that ensures a thorough DOE investigation of foreign ownership, control or influence on contracts and subcontracts involving access to classified information of special nuclear materials. The e-FOCI system is an e-Government initiative.

Chicago Operations Office

Security Investigations: The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) for DOE Federal employees and contractors under the auspices of the Chicago Operations Office.

New Brunswick Laboratory (NBL)

Nuclear Safeguards and Security: NBL, located in Argonne, Illinois, is the U.S. Government's certifying authority for nuclear reference materials, nuclear safeguards measurements, and measurement evaluations. NBL is a Federal Center of Excellence in nuclear material measurement science.

Program Direction: Funding supports salaries and benefits, travel, training, and contractual services in support of the Federal personnel.

Pacific Northwest National Laboratory (PNNL)

Nuclear Safeguards and Security: PNNL provides technical expertise, assistance, and awareness in support of information security, which includes programs in technical surveillance countermeasures, operations security, and classified matter protection and control. Activities include the review of local security program implementations and the development of recommendations for resolving security issues across DOE. Technical assistance is provided to support special nuclear material consolidation, the Master Safeguards and Security (S&S) Agreement, the Site S&S Plan, and performance testing. PNNL provides technical, analytical, operational, and support to the Office of Foreign Visits and Assignments in support of their Foreign Access Central Tracking System.

Specialized technical support is provided to the Classification, Declassification, and Controlled Information Program in the following areas: weapons, material production, material disposition, technology, chemical/biological weapons, and intelligence.

Idaho Operations Office

Idaho National Engineering and Environmental Laboratory (INEEL)

Nuclear Safeguards and Security: INEEL provides onsite participation and field assistance for facilities' site safeguards and security plan development and review, specialized safeguards and security engineering support, and day-to-day technical support of the Headquarters security alarm and access control system.

Idaho National Laboratory (INL)

Nuclear Safeguards and Security: INL provides onsite participation and field assistance for facilities' site safeguards and security plan development and review, specialized safeguards and security engineering support, and day-to-day technical support of the Headquarters security alarm and access control system.

Idaho Operations Office

Security Investigations: The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel

Management (OPM) for DOE Federal employees and contractors under the auspices of the Idaho Operations Office.

Kansas City Site Office

Nuclear Safeguards and Security: Specialized technical expertise and support is provided to the Classification, Declassification, and Controlled Information Program in the following areas: weapons, material production, material disposition, technology, chemical/biological weapons, and intelligence.

Livermore Site Office/Lawrence Livermore National Laboratory (LLNL)

Nuclear Safeguards and Security: The LLNL technology development program focuses on physical security and Materials Control and Accounting (MC&A). Physical security activities focus on advancing capabilities in alarm control and display systems, and release of a protective force locator, duress identifier, and health status monitor into the centralized access control and alarm system, ARGUS. MC&A provides enhanced measurement and physical inventory capabilities to improve assurance that nuclear materials are in authorized locations and used for authorized purposes.

The Classification, Declassification, and Controlled Information Program is supported by providing specialized technical expertise in the following areas: nuclear weapons, material production, material disposition, computer codes, arms control, subcritical experimentation (experiments, in lieu of weapon testing, conducted underground at the Nevada Test Site with very small amounts of plutonium and high explosives), homeland security, guidance streamlining initiative, novel methods of uranium enrichment, and intelligence issues. In addition, LLNL provides analysis and reports on the detailed content and proliferation potential of certain nuclear weapon-related information available in the public domain.

Los Alamos Site Office/Los Alamos National Laboratory (LANL)

Nuclear Safeguards and Security: Work at LANL is designed to address current, evolving, and future needs, primarily in MC&A. The laboratory develops hardware and software that detect, assess, and report the theft or diversion of nuclear materials; nondestructive assay systems that can measure nuclear materials in packages, reducing the costs and increasing the safety of nuclear processing or disposition; and software to collect, analyze, and archive the data that establishes accountability for nuclear material.

Other LANL activities include specialized technical expertise and support to the Classification, Declassification, and Controlled Information Program in the following areas: weapons, material production, material disposition, computer codes, commercial inorganic membranes (permits private sector to utilize gaseous diffusion technology to develop filters for commercial use), centrifuges, and novel methods of uranium enrichment.

Nevada Site Office

Nuclear Safeguards and Security: Activities conducted at the Remote Sensing Laboratory and the Special Technologies Laboratory focus on development of advanced physical security technologies. To assist protective force personnel threat response capability, activities are focused on developing a system

to monitor protective force personnel radio systems and alarm if they become inoperable; providing the real-time status and effectiveness of a security force; technology transfer of a friend/foe identification system; and developing a combined targeting and augmented vision system for security force training.

Nevada Site Office also provides unique technical expertise and support to the Classification, Declassification, and Controlled Information Program in the following areas: nuclear weapons testing, subcritical experimentation (experiments, in lieu of weapon testing, conducted underground at the Nevada Test Site with very small amounts of plutonium and high explosives), radiological emergency response, and stockpile stewardship.

NNSA Service Center

Nuclear Safeguards and Security: The Classification, Declassification, and Controlled Information Program receives support in the development of classification guidance in the areas of nuclear weapons, material disposition, intelligence, and chemical/biological weapons.

Security Investigations: The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) for DOE Federal employees and contractors under the auspices of the Albuquerque NNSA Service Center.

Office of Secure Transportation (OST)

Program Direction: OST is located on Kirtland Air Force Base in Albuquerque, New Mexico. OST provides maintenance, storage, and delivery of Multiple Integrated Laser Engagement System (MILES) equipment used to conduct protective force performance testing. This equipment is used to simulate weapons fire in tactical field exercises that support the assessment of the overall effectiveness of field protection programs.

Oak Ridge Operations Office

Oak Ridge Institute for Science & Education (ORISE)

Nuclear Safeguards and Security: ORISE provides technical support for the implementation, training, operation, and quality assurance of the DOE Human Reliability Program, and a variety of research and analysis activities in support of the personnel security function. ORISE also provides support to the Security Awareness Special Interest Group, which is a forum for Security Awareness Coordinators to disseminate vital security awareness information, media, and tools.

Oak Ridge Operations Office

Nuclear Safeguards and Security: Oak Ridge Operations Office provides support to the Classification, Declassification, and Controlled Information Program by: reviewing documents for declassification requested under the Energy Employees Occupational Illness Compensation Program and Environment, Safety, and Health civil suits, as well as in support of the large-scale declassification program; and by

providing technical expertise and support for the following areas: nuclear weapons, material production, material disposition, commercial inorganic membranes (permits private sector to utilize gaseous diffusion technology to develop filters for commercial use), centrifuges, and novel methods of uranium enrichment.

Security Investigations: The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) for DOE Federal employees and contractors under the auspices of the Oak Ridge Operations Office.

The National Training Center receives funding through the NNSA Service Center for maintaining the DOE Test Center/Accelerated Access Authorization Program (AAAP) located in Oak Ridge, Tennessee. The AAAP expedites the placement of urgently required personnel through processing a "Q" interim access authorization prior to completion of the standard background investigation.

Pantex Site Office/Pantex Plant

Nuclear Safeguards and Security: Technical expertise and support is provided to the Classification, Declassification, and Controlled Information Program in the following areas: nuclear weapons production and military use, stockpile stewardship, and specific nuclear weapon system guidance.

Pittsburgh Naval Reactors

Security Investigations: The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) for DOE Federal employees.

Richland Operations Office

Hanford Site

Nuclear Safeguards and Security: Hanford provides field expertise, technical support and assistance for the review, update and consolidation of safeguards and security orders, policies, and field guidance.

Richland Operations Office

Security Investigations: Richland Operations Office, located in Richland, Washington, manages waste products and develops and applies commercialized technologies. The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) for DOE Federal employees and contractors under the auspices of the Richland Operations Office.

Sandia Site Office/Sandia National Laboratories (SNL)

Nuclear Safeguards and Security: Sandia focuses on development of technologies and systems required to protect the Department from catastrophic consequences of such circumstances as use of nuclear weapons and/or material for malevolent purposes or the erosion of national security secrets through theft or diversion of classified materials or information. Technical assistance is provided for assessment of site vulnerability analyses and site safeguards and security plans. The technology development program focuses on physical security technologies to protect and secure the DOE complex. Activities include developing active denial technologies; countermeasures for security equipment vulnerabilities; and enhanced protective force technologies, such as deployment of a weapon stabilization platform for an armored response vehicle. Sandia will also update the Adversary Timeline Analysis Software to more accurately and realistically model DOE security systems and analyze them for vulnerabilities and will develop a simulation tool to allow a single analyst to determine the probability of neutralizing adversaries, at significantly reduced cost.

Sandia provides technical expertise to the Classification, Declassification, and Controlled Information Program in the development of Headquarters classification guidance covering the following areas: nuclear weapons, nuclear weapon production and military use, stockpile stewardship, chemical/biological weapons, nuclear smuggling, computer codes, and intelligence.

Savannah River Operations Office

Savannah River Site (SRS)

Nuclear Safeguards and Security: Savannah River supports MC&A through the development, enhancement, deployment, and operation of a software application (LANMAS) for nuclear materials accounting throughout the DOE complex. This technology allows greater reliability, efficiency, and cost savings through increased standardization and use of advanced software technologies.

Savannah River Operations Office

Nuclear Safeguards and Security: Savannah River operates and maintains the Nuclear Materials Management and Safeguards System (NMMSS) as the U.S. Government's official accounting system on the possession, use, and shipment of nuclear material as a co-sponsor with the U.S. Nuclear Regulatory Commission.

Security Investigations: The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) for DOE Federal employees and contractors under the auspices of the Savannah River Operations Office.

Schenectady Naval Reactors

Security Investigations: The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) for DOE Federal employees.

Washington Headquarters

Office of Scientific and Technical Information (OSTI)

Nuclear Safeguards and Security: Efforts are focused on capturing historical and current safeguards and security information, converting this information to electronic documents, and providing timely access and analysis capabilities for the safeguards and security policy staff.

Support is also provided for the Classification, Declassification, and Controlled Information Program by improving the access capability to DOE's OpenNet database and maintaining a thesaurus and dictionary for the automated classification guidance system used in the electronic Classification Guidance System (CGS).

National Training Center (NTC)

Nuclear Safeguards and Security: NTC is located in Albuquerque, NM, and reports to the Office of Security at Headquarters. NTC was established to be the DOE leader in the development of standardized, state-of-the-art security training methodology and for integrating comprehensive and professionally executed training, education, and vocational services. NTC provides training and education services and support to the Department through the Safeguards and Security Central Training Academy; Foreign Interaction Training Academy; and, Accelerated Access Authorization Program Test Center.

Since the September 11 attacks, NTC has been actively involved in conducting DOE training and education for a major component of the Homeland Defense effort. This includes: identifying and countering foreign intelligence threats; providing value-added defensive counterintelligence; and conducting employee self-defense briefings, debriefings, and specific awareness training about national security issues.

Security Investigations: NTC receives funding for maintaining the DOE Test Center/Accelerated Access Authorization Program (AAAP) located in Albuquerque, New Mexico, and the Safeguards and Security Awareness Program. The AAAP expedites the placement of urgently required personnel through processing a "Q" interim access authorization prior to completion of the standard background investigation.

Washington Headquarters

Nuclear Safeguards and Security: The Headquarters program for Nuclear Safeguards and Security has responsibility for management and implementation of the:

- Headquarters Security Protective Force;
- Technical Surveillance Countermeasures (TSCM) program;
- Safeguards and Security Information Management System (SSIMS) database;
- DOE Computer Forensics Laboratory, supporting inquiries into unauthorized disclosures of classified information;
- Maintenance and upgrade of alarm systems, access control systems, related computer equipment; and protective force equipment;
- Continuity of Operations/Continuity of Government (COOP/COG); and,
- Classification and declassification of nuclear weapons-related technology (known as Restricted Data and Formerly Restricted Data) and other information classified by Executive Order (known as National Security Information); control of information protected by statute (known as Unclassified Controlled Nuclear Information and Official Use Only Information); policies that provide the public access to information necessary for an informed discussion of DOE's nuclear weapons and other programs while continuing to support the paramount objective of protecting information from strategic adversaries, proliferants or potential proliferants, and terrorists.

Security Investigations: The Security Investigations budget provides funding for background investigations conducted by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) for DOE Federal employees and contractors under the auspices of Washington Headquarters.

Headquarters also funds Department-wide personnel security databases and their subsequent integration via the eGov DOE Integrated Security System+ (eDISS+). The eDISS+ initiative consists of a set of interrelated databases, associated client applications, and web pages that provide a mechanism to automate the processing and tracking of access authorization requests Department-wide. eDISS+ also allows electronic communications between DOE offices and the transmission of investigative requests directly from DOE offices to OPM.

Program Direction: The SSA Federal personnel serve as the operational element for activities that include: Department-wide security policy; the security training mission at the NTC in Albuquerque, New Mexico; Department-wide control and accountability of plutonium, uranium, and special materials; classification and declassification operations; tracking of foreign national visits and assignments and official foreign travel; executive protection; Headquarters safeguards and security operations; the COOP/COG programs; and the Independent Oversight and Performance Assurance Program. Program direction provides funding for the Federal staff, including salaries, benefits, travel, training, Working Capital Fund, and other personnel-related expenses.

Additionally, the evolving short-term needs for national-level expertise in a multitude of disciplines can best be met through the use of contractors who can rapidly respond to the continually changing skills required for independent oversight activities across the DOE complex. Contractor support provides a practical and cost-effective method of providing a surge pool of technical expertise in specific safety and

security disciplines for supporting the SSA mission, including nuclear safeguards and security; cyber security; emergency management; and environment, safety, and health.

Y-12 Site Office/Y-12 National Security Complex (Y-12)

Nuclear Safeguards and Security: At Y-12, the technology development program provides physical security technologies to protect vital DOE assets and nuclear materials control and accountability technologies to detect the loss, theft, or diversion of nuclear materials.

Y-12 also provides technical expertise and support to the Classification, Declassification, and Controlled Information Program in developing guidance streamlining technologies and techniques to manage classification policy and guidance in an effective manner. Specifically, Y-12 is developing a method to manage classification topics and related classification guidance information, such as key concepts, keystones, and reasons for classification keywords.

Office of Security and Safety Performance Assurance

Funding Profile by Subprogram

	FY 2004 Comparable Appropriation	FY 2005 Comparable Appropriation	FY 2006 Request
Office of Security and Safety Performance Assurance			
Nuclear Safeguards and Security	179,306	183,845	176,878
Security Investigations	54,234	44,561	48,725
Program Direction	70,927	77,693	75,492
Total, Office of Security and Safety Performance Assurance	304,467[d]	306,099[c]	301,095

Public Law Authorizations:

P.L. 83-703, "Atomic Energy Act of 1954"
P.L. 95-242, "Nuclear Non-Proliferation Act of 1978"
P.L. 103.62, "Government Performance Results Act of 1993"
H.R. 4200, P.L. 108-375, Sec. 3103, "Ronald W. Reagan National Defense Authorization Act for FY 2005"

Mission

SSA provides for the development, promulgation, and evaluation of safeguards and security programs, and the oversight of safeguards and security; cyber security; emergency management; and environment, safety, and health programs throughout the Department; and provides security-related services to DOE Headquarters. At the corporate level, SSA coordinates roles and responsibilities and provides for increased communication between, and efficient management of, SO and OA. SSA also provides administrative support to the Departmental Representative (DR) to the DNFSB.

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. SSA performs critical functions that directly support the mission of the Department. These functions include:

- developing and promulgating clear and consistent safeguards and security strategies and policies governing the protection of national security and other critical assets entrusted to the Department;
- developing and providing standardized, comprehensive safeguards and security training throughout the Department;
- managing the Department's protective force for DOE facilities in the National Capital Area (NCA), including Continuity of Operations (COOP) and Continuity of Government (COG) Plans;
- providing executive protective services for the Department;

- developing and deploying security technology;
- developing and implementing Department-wide nuclear materials tracking and accounting programs;
- assisting other Governmental and Departmental organizations in the mission of accounting for and assuring the security of nuclear material throughout the world;
- managing the Department's security investigations budget and personnel security programs associated with providing access authorizations to DOE Federal and contract personnel;
- managing the Government-wide program to classify and declassify nuclear weapons-related technology and implement the requirements of Executive Order (EO) 12598 regarding the classification and declassification of information that is vital to national security;
- conducting performance appraisals to verify that the Department's safeguards and security interests are protected; the Department can effectively respond to emergencies; and site workers, the public, and the environment are protected from hazardous operations and materials; and,
- providing support for centralized leadership in resolving DNFSB issues.

Benefits

DOE must implement effective safeguards and security programs in an increasingly challenging threat environment especially post 9-11. SSA's primary focus is on effectively and efficiently implementing protection programs that fully respond to the May 2003 design basis threat (DBT) policy by addressing programmatic and technical uncertainties and establishing cooperation and useful dialog between managers and security professionals at all levels. To this end, and in support of the recently announced unprecedented security initiatives by the Secretary, SSA is: 1) streamlining existing security policies to remove ambiguity in roles, responsibilities, and requirements; eliminate conflicts; and incorporate recent updates; 2) improving the development, deployment, and use of innovative security technology to transition from administrative to engineering controls; 3) advancing the professional development of DOE security personnel to ensure that their training is responsive to the needs of the DOE community by developing new courses based on evolving threats,; 4) increasing the capabilities and responsiveness of the protective force; and 5) improving the defensive posture of DOE .

SSA also identifies and reports to senior DOE managers on site-specific and Department-wide issues regarding nuclear safeguards and security, cyber security, emergency management, environment, safety, and health, and other programs using an efficient, systematic oversight process that emphasizes performance and performance testing; conducts follow-up activities to determine the effectiveness of corrective actions; and promotes line management self-assessment activities, thereby enhancing overall performance in these program areas. In addition, SSA provides effective cross-organizational leadership in resolving DNFSB-related technical and management issues necessary to ensure public health and safety.

Nuclear Safeguards and Security

Funding Schedule by Activity

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Nuclear Safeguards and Security (NSS)					
Operational Support	141,131[a]	152,053[a,b]	149,048	-3,005	-2..0%
Technology and Systems Development	20,797	14,519	14,519	0	0.0%
Classification, Declassification, and Controlled Information Program	17,378	17,274	13,311	-3,963	-22.9%
Total, Nuclear Safeguards and Security	179,306[c]	183,845	176,878	-6,968	-3.8%

Description

The mission of the Nuclear Safeguards and Security (NSS) subprogram is to provide security policy development, interpretation, and guidance regarding all aspects of nuclear safeguards and security; develop and provide safeguards and security and safety training; oversee the development, application, and deployment of new security technologies throughout DOE; and develop and manage the Department's classification and controlled information program. In addition, NSS provides specialized security support related to security issues tracking; nuclear materials accountability; foreign travel, visits, and assignments; and foreign ownership and control. NSS also provides operational support to DOE Headquarters by managing the physical protection and security of DOE personnel, property, and information in the National Capital Area (NCA), and the Department's Continuity of Operations (COOP) and Continuity of Government (COG) programs.

The Program Goals of SSA will be accomplished not only through the efforts of the direct (GPRA Unit) programs but with additional efforts from subprograms which support the GPRA Units in carrying out their mission. NSS performs the following functions in support of the overall mission of SSA.

Benefits

This subprogram provides the core functions of the nuclear safeguards and security program for DOE by developing and promulgating safeguards and security policies, technology, and training related to nuclear material control and accountability and physical, personnel, and information security and safety; foreign visits, assignments, and travel; and classification and information control throughout the Department in cooperation with subject matter experts (SMEs) and the security community at all levels of the Department. SMEs at Headquarters and throughout the DOE complex develop and maintain sound policies that are responsive to national security needs and enable line management, through Headquarters and field organizations, to implement effective safeguards and security programs in a

[a] Reflects comparability adjustment to transfer $7,030,000 in FY 2004 and $10,029,000 in FY 2005 from the Office of Security and Safety Performance Assurance to DOE/NNSA for support of the DOE Operations Center.
[b] Reflects reduction for FY 2005 Omnibus Rescission of $1,483,000.
[c] Reflects reduction for FY 2004 Omnibus Rescission of $601,000.

timely manner. National laboratory resources are utilized to develop the most promising and urgently needed technologies pertaining to physical security and nuclear material control, emphasizing engineering in place of administrative controls to diminish the Department's reliance on increased manpower levels as the primary means to strengthen security. The Classification, Declassification, and Controlled Information Program prevents adversaries from acquiring weapons of mass destruction or damaging the nation's energy infrastructure by developing policies and guidance to identify critical information warranting protection. The National Training Center (NTC) in Albuquerque, New Mexico, is the primary mechanism used to develop and provide up-to-date, comprehensive security and safety training throughout the Department.

This subprogram also provides DOE Headquarters with services pertaining to physical protection and security for DOE personnel, assets, and facilities in the National Capital Area (NCA) and COOP/COG programs. SSA provides security for facilities in the NCA with contract personnel. The scope of the operations includes building/property access, classified information facilities security, and executive protection. The COOP/COG programs ensure that DOE can provide critical services in the event of a major emergency or disaster by establishing, maintaining, and protecting critical infrastructure and key assets required to support DOE's essential functions and national security responsibilities.

Detailed Justification

(dollars in thousands)

FY 2004	FY 2005	FY 2006
Operational Support **141,131**	**152,053**	**149,048**

The mission of the Operational Support activity is to provide technical and analytical expertise that enhances the Department's security mission effectiveness through policy development, comprehensive standardized security training, specialized security support, and operational support to DOE Headquarters.

National Training Center - The mission of this activity is to develop and maintain the proficiency and competency of DOE safeguards and security personnel through standardized training, education, and professional development services; and conduct ongoing workforce analysis and career development programs in all aspects of safeguards and security required for the protection of the Department's critical assets and the national security. The National Training Center (NTC), formerly the Nonproliferation and National Security Institute, in Albuquerque, New Mexico, is the primary resource for performing this function.

(dollars in thousands)

FY 2004	FY 2005	FY 2006

Nuclear Materials Accountability (NMA) - The mission of this activity is to provide information necessary to track nuclear material, primarily within the U.S., for the purposes of satisfying statutory requirements and international obligations; developing and/or providing protection of the material; and managing emergency response. The mission is achieved by developing and maintaining calibration equipment, materials, and methodologies used throughout the U.S. to measure and verify nuclear material quantities; and developing and maintaining database systems used to collect and report information on the location of nuclear material.

Information Security - The information security resource (ISR) function provides subject matter expertise for the development of safeguards and security policy requirements and performance measures in accordance with the National Industrial Security Program for the protection of classified information and ensures that the concepts and objectives of the President's Management Agenda and the Government Performance Results Act are integrated into safeguards and security policy.

The mission of the foreign ownership, control, or influence (FOCI) activity is to determine whether offerors/bidders or contractors are owned, controlled, or influenced by a foreign entity and whether, as a result, the potential for an undue risk to the common defense and national security may exist. The primary tool used in this program is the electronic Foreign Ownership, Control, or Influence (e-FOCI) database, a Presidential Management Initiative e-Government project. The e-FOCI database reduces the time necessary for analysis of company information prior to award of contracts and enhances field elements' ability to tailor FOCI mitigation solutions for classified contracts necessary for local operational needs and missions.

Cyber Forensics - This function conducts information systems security cyber forensic activities in support of the Department Information Security Program through a partnership contract agreement with the National Security Agency (NSA). The Cyber Forensics Laboratory (CFL) utilizes standard computer systems with commercially available and NSA-developed software to analyze other computer systems and media in support of inquiries, investigations, and prosecutions of unauthorized use and/or disclosure of classified information. The CFL provides timely collection and unbiased analysis of electronic data to provide a clear, independent interpretation of findings.

Specialized Security Support - These are specific activities performed across the complex and provides certain specific activities and functional support to program organizations and the Departmental complex as a whole.

(dollars in thousands)

FY 2004	FY 2005	FY 2006

Security Issues Data Management - This activity manages information used by SSA and throughout the DOE security complex regarding security issues related to policy implementation. The primary tool used by this activity is the Safeguards and Security Information Management System (SSIMS), a centralized database that serves as the master repository of current and historical DOE safeguards and security deficiencies, from both internal and external sources, as well as associated corrective actions.

- **Risk Management/Vulnerability Assessment -** This activity provides risk management, vulnerability assessment (VA), and safeguards and security system performance evaluations, verifications, and validations for identification and clarification of threats to Departmental assets and development of innovative concepts to mitigate emerging threats. This program provides safeguards and security input through the various phases of critical design review and line item construction projects and provides technical support to the Department regarding design, construction, and review of sensitive compartmented information facilities (SCIFs). Benefits include consistent application of the Design Basis Threat Policy throughout the Department and consistency in curriculum development for VA training required for computer based assessment tools.

- **Physical and Personnel Security -** The physical security activity provides engineering and technical support through field expertise in evaluating, reviewing, and providing input in support of DOE national security policy development requirements. It funds technical support in the development of physical security systems policy; provides expert advice and assistance on adversary's timeline tools; conducts analysis of physical security systems technical guidance documents; provides technical guidance to the NTC in the development of physical security systems training curriculums; provides technical guidance in explosive detection systems and procedures; and evaluates integrated alarm management and control systems performance.

- **Nuclear/Biological/Chemical (NBC) Protection -** Funds support a counter-terrorist capability to detect, assess, and protect DOE facilities and employees from adversarial use of NBC weapons of mass destruction. Funding is planned to complete detection and assessment capabilities of NBC agents across the DOE complex, and to develop collective protection capabilities for a "shelter-in-place" response to releases of toxic chemicals at DOE facilities.

Headquarters Security - This activity is comprised of a security protective force and operation of the countermeasures, alarms, and access control equipment and systems designed to provide protection of DOE assets, along with management of the DOE Continuity of Operations (COOP)/Continuity of Government (COG) programs.

(dollars in thousands)

FY 2004	FY 2005	FY 2006

- **Protective Force -** This activity includes the security protective force of over 200 contract personnel engaged in the actual protection of Headquarters employees, classified information, and facilities in the National Capital Area. Protection and physical access control is provided 24 hours a day, 365 days a year at the Forrestal building and satellite facilities in Washington, D.C., the Germantown Facility, and satellite facilities in Germantown, Maryland.

Headquarters Security Operations

- Headquarters security operations consists of the Technical Surveillance Countermeasures (TSCM) Program and Security Alarms and Access Control System (SAACS). TSCM provides detection and denial of hostile intelligence collection operations bent on penetrating Headquarters' sensitive installations to steal technology, or sensitive or classified information. Detection and denial are effected through technical surveys, inspections, in-conference monitors, and pre-construction consultation services. TSCM activity also provides technical threat analysis for DOE Headquarters and DOE contractor facilities in the greater Washington, D.C. area. Funding also provides for the acquisition, maintenance, and upgrade of unique TSCM equipment.
- SAACS provides for the operation and maintenance of equipment and technology including security screening equipment, vehicle inspection scanning devices, low-light closed circuit TV monitoring, and NBC detection devices; turnstiles; and other access control technologies. Funding also supports various maintenance/upgrade contracts to ensure that the SAACS system operates in compliance with DOE security policy and operational requirements.

Continuity of Operations / Continuity of Government

- This activity also provides for the DOE COOP/COG programs. Presidential Decision Directive 67, *Enduring Constitutional Government and Continuity of Government Operations, October 21, 1998,* mandates that each Federal department and agency establish and maintain a COOP capability. COG is a coordinated effort within each branch of the Government to ensure the capability of the Federal Government to continue its minimum essential responsibilities in a catastrophic emergency. This mission necessitates the establishment, maintenance, and protection of critical infrastructures required to support DOE's essential functions and national security responsibilities.

Technology and Systems Development	**20,797**	**14,519**	**14,519**

Technology and Systems Development (TSD) activities identify and evaluate security vulnerabilities throughout the Department and then leverage technology solutions to enhance the operational capability to meet these emerging threat scenarios. The funding focuses on applying available security technology to the mitigation of security weaknesses, applying technology to reduce security costs, as appropriate, and developing technological solutions in physical security, including protective force and nuclear material control and accountability, where current technologies are inadequate to meet DOE requirements.

(dollars in thousands)

FY 2004	FY 2005	FY 2006

Funding supports the identification and determination of the effectiveness of technologies and measures that can be used to mitigate threats identified in the Design Basis Threat (DBT) Policy. Physical security areas where technologies have been identified as potential mitigation for identified weaknesses include access delay, vehicle bomb barriers, beyond-the-fence early warning, advanced video, biometrics, explosives detection, survivability of security systems in aggressive and sophisticated attack environments, weapon stabilization platforms, and an operational friend/foe identification system. Material control and accounting (MC&A) TSD activities support the development and testing of essential capabilities for radiation detection, tracking devices, and other components that could be assembled into systems for continuous, automated surveillance of nuclear material activities. Funding also supports the development of measurement systems to provide quick, quantitative measurement of nuclear materials in vaults and at nuclear materials process lines. Also funded under this activity are various technology deployment planning activities such as publication of a Protective Force Modernization Plan, continued development of an adversary timeline analysis software product, and a cost/performance analysis tool that will allow security analysts to compare life-cycle costs and risk reduction potential of security line item alternatives.

Classification, Declassification, and Controlled Information Program	**17,378**	**17,274**	**13,311**

The Classification, Declassification, and Controlled Information program ensures the Department meets its statutory responsibility to implement the Government-wide program to classify and declassify nuclear weapons-related technology and to implement the requirements contained in Executive Order (E.O.) 12958 to classify other information that is critical to the national security. This program also identifies information that is controlled under statute to protect the national security and other governmental, commercial, and private interests.

The policy and technical guidance activity develops and issues Government-wide and Department-wide policies (e.g., regulations and directives) and technical guidance to ensure that classified nuclear weapons-related information and other information assets critical to the national security and to other Governmental, commercial, or private interests are identified for proper protection. This activity is vital to national security and U.S. non-proliferation efforts because information assets cannot be protected until they are identified as requiring protection. Funding provides for the conduct of appraisals of DOE and other agencies' operations to ensure that classification and information control programs are adequate and effective and for the development and conduct of training for DOE and other agency personnel in classification and information control programs and related areas.

Total, Nuclear Safeguards and Security	**179,306**	**183,845**	**176,878**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Operational Support	
■ **Operational Support**	
• Net decrease resulting from a variety of changes and efficiencies throughout the operational support area as a result of the reorganization and shifting of employee skill mix. ($3,005,000)	-3,005
Total, Operational Support	**-3,005**
Classification, Declassification, and Controlled Information Program Decrease due to a reprioritization that has eliminated or deferred work in the areas of classification guidance and infrastructure projects.	**-3,963**
Total Funding Change, Nuclear Safeguards and Security	**-6,968**

Security Investigations

Funding Schedule by Activity

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Security Investigations					
Federal Bureau of Investigation	4,511	1,865	2,401	+536	+28.7%
Office of Personnel Management	44,868	38,160	41,497	+3,337	+8.7%
Related Security Investigations Activities	4,855	4,536	4,827	+291	+6.4%
Total, Security Investigations	54,234[a]	44,561[b]	48,725	+4,164	+9.3%

Case Projections

(Number of cases)

	FY 2004	FY 2005	FY 2006	Case Change	% Change
Federal Bureau of Investigation (FBI)					
Initial Background Investigations	300	100	100	0	0%
Reinvestigations	1,229	539	708	+169	+31.4%
Subtotal, FBI Investigations	1,529	639	808	+169	+26.4%
Office of Personnel Management (OPM)					
Initial Background Investigations	7,494	5,736	5,956	+220	+3.8%
Reinvestigations	10,436	9,103	9,787	+684	+7.5%
National Agency Checks	5,988	4,455	5,400	+945	+21.2%
Subtotal, OPM Investigations	23,918	19,294	21,143	+1,849	+9.6%
Total, Case Projections	25,447	19,933	21,951	+2,018	+10.1%

Description

The Security Investigations subprogram manages funding for all security background investigations associated with providing access authorization to DOE Federal and contract personnel who, in the performance of their official duties, require access to classified information or certain quantities of special nuclear material. This subprogram also manages the Accelerated Access Authorization Program (AAAP), used to provide interim "Q" access authorizations, and manages and operates security access authorization information systems and associated information control systems used to manage access authorizations throughout DOE. Background investigations are required by Section 145 of the Atomic Energy Act of 1954, as amended, and Executive Order 12968. The investigations are performed and

[a] Reflects reduction for FY 2004 Omnibus Rescission of $320,647.
[b] Reflects conference reduction for FY 2005 of $4,960,000 plus Omnibus Rescission of $359,360.

access authorizations granted based on Title 10, Code of Federal Regulations, Part 710, *Criteria and Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material.*

The Program Goals of the Office of Security and Safety Performance Assurance will be accomplished not only through the efforts of the (GPRA Unit) programs but with additional efforts from subprograms which support the GPRA Units in carrying out their mission. Security Investigations performs the following functions in support of the overall mission of the Office of Security and Safety Performance Assurance.

Benefits

This subprogram provides for the centralized management of access control to sensitive information, facilities, and material entrusted to DOE thus ensuring national security. Background investigations are performed in accordance with DOE Order 472.1C in a cost effective manner by either the Federal Bureau of Investigation (FBI) or the Office of Personnel Management (OPM) as required. To supplement the investigations, the AAAP provides a method for granting qualifying new DOE employees and contractors interim "Q" access authorizations within 21 days while the 150 to 300 day background investigation is completed. This allows new hires to begin productive work while affording additional assurances that the national security is being safeguarded. The management of access authorization data is performed in a cost effective, efficient, manner via the use of electronic databases and Internet capable tools that comprise the electronic DOE Integrated Security System (e-DISS+), a President's Management Agenda e-Government initiative that supports and tracks the adjudication process from the beginning to the disposition of the access authorization request electronically.

Program Funding Distribution Table

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Estimated Program Distribution					
National Nuclear Security Administration	32,882	26,681	29,295	+2,614	+9.8%
Defense Environmental Management	10,201	6,684	6,275	-409	-6.1%
Science	1,551	2,693	3,185	+492	+18.3%
Security	8,483	7,419	8,712	+1,293	+17.4%
Nuclear Energy	1,117	1,084	1,258	+174	+16.1%
Total, Security Investigations	54,234	44,561	48,725	+4,164	+9.3%

Detailed Justification

(dollars in thousands)

FY 2004	FY 2005	FY 2006

Background Investigations

These two activities provide for the background investigations performed by the FBI and OPM. Subactivities include initial investigations, reinvestigations, and National Agency Checks. The FBI performs investigations for positions of a high degree of importance or sensitivity; OPM performs all other investigations. The National Defense Authorization Act for FY 2004 (H.R. 1588, Section 3151) removed the provision that investigations of individuals in the Personnel Security Assurance Program (PSAP) and Personnel Assurance Program (PAP) be conducted by the FBI. The Office of Personnel Management (OPM) will now conduct the PSAP and PAP investigations. FBI investigations are more expensive due to higher contractor operating costs than OPM (6% higher for initial investigations and 28% higher for reinvestigations).

Federal Bureau of Investigation (FBI)	**4,511**	**1,865**	**2,401**

The FBI conducts background investigations for Federal and contractor personnel for positions of high degree of importance or sensitivity.

Office of Personnel Management	**44,868**	**38,160**	**41,497**

Funding covers background investigations performed by OPM for DOE Federal personnel and contractors who do not require an investigation by the FBI.

Related Security Investigations Activities	**4,855**	**4,536**	**4,827**
Total, Security Investigations	**54,234**	**44,561**	**48,725**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Federal Bureau of Investigation (FBI) Funding level reflects a slight increase in funding due to rising case prices and an estimated increase of reinvestigations from FY 2005. The "Q" reinvestigation workload is projected to be slightly higher due to the five-year reinvestigation requirement .	+536
Total, Federal Bureau of Investigation (FBI)	**+536**
Office of Personnel Management (OPM)	**+3,337**
■ **Initial Background Investigations** Funding level reflects an estimated increase of 220 initial background investigations from FY 2005. "Q" reinvestigation requirements are estimated to be 684 cases higher than in the FY 2005 budget request Funding level reflects an increase of 945 cases (an increase of 1,373 initials and a reduction of 428 reinvestigations).	
Total, Office of Personnel Management	**+3,337**
Related Security Investigations Activities	
■ **Accelerated Access Authorization Program (AAAP)** Increased funding is necessary to support the operating costs of the AAAP located in Albuquerque and Oak Ridge. Due to the increase in interim access authorization requests, the costs associated with processing those cases also increases	+291
Total, Related Security Investigations Activities	**+291**
Total Funding Change, Security Investigations	**+4,164**

Program Direction

Funding Profile by Category

(dollars in thousands/whole FTEs)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
New Brunswick Laboratory (NBL)					
Salaries and Benefits	3,680	3,821	4,108	+287	+7.5%
Travel	71	71	71	0	0.0%
Support Services	143	143	0	-143	-100.0%
Other Related Expenses	1,637	1,556	1,699	+143	+9.2%
Total, NBL	5,531	5,591	5,878	+287	+5.1%
Full Time Equivalents	40	40	40	0	0.0%
NNSA Service Center					
Support Services	311	311	311	0	0.0%
Total, NNSA Service Center	311	311	311	0	0.0%
Full Time Equivalents	0	0	0	0	0.0%
Pacific Northwest National Laboratory (PNNL)					
Support Services	250	250	250	0	0.0%
Total, PNNL	250	250	250	0	0.0%
Full Time Equivalents	0	0	0	0	0.0%
Headquarters					
Salaries and Benefits	32,857	38,927	35,481	-3,446	-8.9%
Travel	2,430	2,447	2,362	-85	-3.5%
Support Services	17,776	17,559	18,110	+551	+3.1%
Other Related Expenses	11,772	12,608	13,100	+492	+3.9%
Total, Headquarters	64,835	71,541	69,053	-2,488	-3.5%
Full Time Equivalents	397	403	383	-20	-5.0%

(dollars in thousands/whole FTEs)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Total, Program Direction					
Salaries and Benefits	36,537	42,748	39,589	-3,159	-7.4%
Travel	2,501	2,518	2,433	-85	-3.4%
Support Services	18,480	18,263	18,671	+408	+2.2%
Other Related Expenses	13,409	14,164	14,799	+635	+4.5%
Total, Program Direction	70,927[a,b]	77,693[a,c]	75,492	-2,201	-2.8%
Total, Full Time Equivalents	437	443	423	-20	-4.5%

Mission

Program Direction provides the Federal staffing resources and associated costs required to provide overall direction and execution of the Office of Security and Safety Performance Assurance (SSA), including its two subordinate offices, the Office of Independent Oversight and Performance Assurance (OA) and the Office of Security (SO). SSA also provides administrative support to the Departmental Representative (DR) to the Defense Nuclear Facilities Safety Board (DNFSB).

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices that support the programs in carrying out the mission. SSA performs critical functions that directly support the Department. These functions include:

- developing and promulgating clear and consistent safeguards and security strategies and policies governing the protection of national security and other critical assets entrusted to the Department;
- developing and providing standardized, comprehensive safeguards and security training throughout the Department;
- managing the Department's protective force for DOE facilities in the National Capital Area (NCA), including Continuity of Operations (COOP) and Continuity of Government (COG) Plans;
- providing executive protective services for the Department;
- developing and deploying security technology;
- developing and implementing Department-wide nuclear materials tracking and accounting programs;
- assisting other Governmental and Departmental organizations in the mission of accounting for and assuring the security of nuclear material throughout the world;
- managing the Department's security investigations budget and personnel security programs associated with providing access authorizations to DOE Federal and contract personnel;

[a] Reflects comparability adjustments to transfer $4,465,000 in FY 2004 and $4,579,000 in FY 2005 from the Office of Security and Performance Assurance to DOE/NNSA for the support of the Emergency Operations Centers and the Threat Assessment Function.
[b] Reflects the FY 2004 Omnibus Rescission of $303,012 for SO, and $132,721 for OA.
[c] Reflects the FY 2005 Omnibus Rescission of $429,200 for SO, and $197,352 for OA.

- managing the Government-wide program to classify and declassify nuclear weapons-related technology and implement the requirements of Executive Order (EO) 12598 regarding the classification and declassification of information that is vital to national security;
- conducting performance appraisals to verify that the Department's safeguards and security interests are protected; the Department can effectively respond to emergencies; and site workers, the public, and the environment are protected from hazardous operations and materials; and,
- providing support for centralized leadership in resolving DNFSB issues.

Detailed Justification

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Salaries and Benefits	**36,537**	**42,748**	**39,589**

Salaries and benefits for FY 2006 provide for 313 Federal full-time equivalents (FTEs) with the technical expertise needed to carry out the essential SSA missions. The comparable Federal staffing level is derived from the FY 2004 combined staffing from SO (227), New Brunswick Laboratory (NBL) (40), OA (66), DR (5). In FY 2004, 27 FTEs were transferred from SSA to National Nuclear Security Administration (NNSA) to coincide with the transfer of the Emergency Operations Center and related planning, communications, exercises, and simulation functions. Based on a workforce analysis and skills evaluation performed by SSA, it has been determined that there will be a reduction of 25 FTEs in FY 2006. This reduction is also due to streamlining the efficiency of operations following the formation of SSA in December 2003, and the significant program and organizational restructuring and realignments completed in April 2004. Salaries and benefit estimates are based on the economic assumptions provided by the Office of Management and Budget. Funding for full-time permanent employees includes salaries and other personnel benefits, such as cash incentive awards, lump sum payments, Senior Executive Service and other performance awards, and worker's compensation, and provides for the skills and expertise required to carry out the mission based on the reorganization of SO and OA into SSA.

Federal personnel at Headquarters (273 FTEs) perform the independent oversight mission, support the DNFSB liaison functions, and serve as the operational element for safeguards and security policy, technology development, executive protection, and Headquarters security. Activities include the security training mission at the National Training Center in Albuquerque, New Mexico; plutonium, uranium, and special material control and accountability; classification and declassification operations; tracking of foreign national visits and assignments and official foreign travel; Headquarters security operations; executive protection operations; security investigations; Department-wide security policy; COOP/COG programs and the Office of the Director.

Federal employees (40 FTEs) are also located at NBL in Argonne, Illinois. NBL serves as the central authority for nuclear material safeguards measurements and measurement evaluations and is the Government's certifying authority for nuclear reference materials. These positions support the ongoing certified reference materials effort, the measurement exchange program, and field assistance in the area

of Material Control and Accountability (MC&A) measurements and accounting.

Travel **2,501** **2,518** **2,433**

Travel includes all costs of transportation, subsistence, and incidental travel expenses incurred by SSA Federal employees in accordance with Federal Travel Regulations. SSA domestic and foreign trips are necessary to conduct essential security activities. These activities include national safeguards and security assistance, and interface with field offices, laboratories, and local, state, and foreign governments. Additionally, SSA personnel must travel to accomplish the independent oversight mission, which entails extensive field activities, such as evaluations across the DOE complex.

Support Services **18,480** **18,263** **18,671**

SSA has analyzed its use of support services and has established specific criteria for their efficient use. While SSA has some unique national-level experts, technical contractual services continue to be more practical and cost-effective. The evolving need for national-level expertise in a multitude of disciplines can best be met through the use of contractors who can rapidly respond to the continually changing skill mix required to perform safeguards and security and independent oversight activities across the DOE complex. Contractor support provides a practical and cost-effective method of providing a surge pool of personnel with technical expertise in a wide range of safety and security disciplines. Support services are utilized as follows.

- **Security Activities** **5,650** **5,530** **5,530**

  Security support services utilize highly specialized technical and analytical expertise and management support personnel essential to its mission success. In support of the overall DOE security mission of protecting the US nuclear deterrence capabilities from a spectrum of diverse threats, this activity develops and promulgates clear and consistent safeguards and security strategies and policy governing the protection of national security and other critical assets entrusted to the Department. This activity also provides for the management of security operations for DOE facilities in the National Capital Area, the Department's COOP/COG programs, and the Mission Support Operations Center, which provides secure operational and emergency communications.

  Mission areas include: 1) nuclear safeguards and security, which includes the National Training Center (NTC), nuclear materials accountability, information security, Headquarters security, specialized security support, foreign visits and assignments, security policy, COOP/COG programs, and classification/declassification; 2) security investigations; 3) program-specific staffing resources to support the protection of Headquarters assets; and 4) support to the Office of the Director for budget, finance, procurement, human resources, and information technology.

- **Independent Oversight Activities** **12,300** **12,116** **12,575**

  Independent oversight activities of nuclear safeguards and security, cyber security, emergency management, and environment, safety, and health programs throughout the Department, directly relate to DOE national security strategic and general goals. Independent oversight appraisals are conducted to verify that the Department's safeguards and security interests are protected, that the

Department can effectively respond to emergencies, and that site workers, the public, and the environment are protected from hazardous operations and materials. These appraisals provide accurate, comprehensive information and analysis regarding the effectiveness, vulnerabilities, and trends of the Department's nuclear safeguards and security; cyber security; emergency management; environment, safety, and health programs; and other critical functions of interest to the Department Secretary, the Deputy Secretary, the Under Secretary, the Administrator of the National Nuclear Security Administration (NNSA), Congressional committees, and other stakeholders, such as the DNFSB.

As required by DOE Order 470.2B, Independent Oversight and Performance Assurance Program, dated October 21, 2002, the independent appraisal function is performed by personnel organizationally independent of the DOE offices that develop and implement policies and programs and, therefore, can objectively observe and report on these policies and programs as they relate to Departmental operations. These appraisals complement but do not replace DOE line management's responsibility for security and safety program oversight and self-assessments, as required by integrated safeguards and security management (ISSM) and integrated safety management (ISM) systems implemented throughout the Department. The appraisal processes utilized are governed by documented, formal protocols addressing all phases of appraisal activities. These processes are also conducive to changing conditions and the needs of the Department.

A well trained and experienced Federal staff, complemented by contracted national-level experts, implements the appraisal processes, which emphasize performance testing. Appraisal personnel observe operations and conduct performance tests to validate the effectiveness of safety and security programs and policies. The end products of the appraisal process are reports documenting the assessment activities conducted, the results of those assessments, and opportunities for improvement or findings. They result in corrective actions that promote the protection of safeguards and security interests, workers, the public, and the environment. Events and activities that have an impact on security and safety are proactively evaluated and evaluation methods and procedures are continuously revised and refined to better evaluate the principal elements of the oversight program.

- **Safeguards and Security Appraisals** **6,033** **5,849** **6,033**

  Nuclear safeguards and security appraisals are conducted at DOE, including NNSA, sites that have significant amounts of special nuclear material, classified information, or other security interests. The scope of the appraisals include: physical protection of special nuclear material, accountability of special nuclear material, protection of classified and sensitive information, personnel security, protective forces, foreign visits and assignments, and protection program management. Performance tests are conducted using weapons simulation systems to perform realistic tactical security engagements between a specially trained composite adversary force and the inspected site protection force to assess overall security performance effectiveness (e.g., force-on-force exercises). These reviews have directly contributed to significant reductions in the recurrence of nuclear safeguards and security issues, and effectively support the maintenance of a safe, secure, and reliable weapons stockpile. As a direct result of the experiences and

expertise developed, Tools and information (e.g., handbooks, videotapes, and lessons learned) have been shared with numerous organizations within the Department.

In FY 2004, evaluations were conducted at Sandia National Laboratory, Y-12, Lawrence Livermore National Laboratory, Pantex Plant, Los Alamos National Laboratory, and the Nevada Test Site. Special reviews of classified matter protection and control were conducted at a number of facilities to include DOE Headquarters, Lawrence Livermore National Laboratory, Argonne National Laboratory-West, Sandia National Laboratory, Los Alamos National Laboratory, Y-12, and the Nevada Site Office. In addition, special Department-wide reviews of protective force management and capabilities, the lock and key program, and security incident reporting were completed to provide management with an overall assessment of those programs. Tactical team training was conducted to maintain the skills of the OA specially trained composite adversary force to ensure the effective assessment of overall security performance effectiveness.

In addition, OA (as part of an SSA team) developed strategies strengthening control and accountability of classified removable electronic media throughout the Department in response to the recent security incidents at LANL and SNL that resulted in a complex-wide stand-down of classified operations using controlled removable electronic media. As a follow-up to the Department's restart, OA continued to review restart packages from Headquarters and field organizations and has continued complex-developed a plan for complex-wide validation of the newly implemented procedures and processes for controlling accountable classified removable electronic media.

- **Cyber Security Appraisals** **967** **967** **1,242**

  Cyber security evaluations provide assurance that classified and sensitive information is protected through multi-facetted evaluations are reviews of cyber security program performance, including unannounced inspections, offsite monitoring of Internet security, controlled attempts to penetrate security firewalls, and other measures. Performance testing is performed at DOE sites and from remote vulnerability testing networks connected to the Internet. Performance testing focuses on identifying network vulnerabilities that could be exploited, evaluating the effectiveness of firewalls, evaluating intrusion detection and system monitoring capabilities, and evaluating other aspects of network security. Cyber security evaluations require the maintenance of state-of-the-art testing capabilities in remote cyber security facilities and a suite of deployable cyber security testing equipment, which are used to support offsite and onsite performance testing during assessments of DOE networks.

  In FY 2004, evaluations were conducted at Sandia National Laboratories, Y-12, Lawrence Livermore National Laboratory, Pantex, Thomas Jefferson National Accelerator Facility, Nevada Test Site, and the Bonneville Power Authority. The first unannounced penetration testing ("red-teaming") of a DOE field location was completed. A special study to identify and evaluate the DOE Internet perimeter, at approximately 50 sites, was completed in cooperation with the Office of the Chief Information Officer. Additionally, based on independent cyber security oversight

activities conducted during FY 2004, OA developed an annual evaluation report for classified computers containing intelligence-related information belonging to Office of Intelligence and an annual complex-wide evaluation report for classified information systems managed by other Departmental elements to meet the Federal Information Security Management Act (FISMA) annual reporting requirements. These annual evaluation reports required cyber security reviews at over 12 facility locations throughout the DOE complex.

- **Emergency Management Appraisals** **800** **800** **800**

  Appraisals of critical emergency management operations are conducted at DOE Headquarters and DOE field sites having significant amounts of special nuclear material or other hazardous materials and/or operations. These appraisals evaluate the effectiveness of all aspects of emergency management programs, including hazards assessment, protective actions, emergency response, emergency public information, and offsite interfaces by conducting tabletop exercises and evaluating full-participation exercises at the inspected sites. Additionally, reviews of crosscutting emergency management topics of increased concern in the heightened terrorist threat environment are performed. Appraisal results have significantly contributed to improvements in emergency management readiness and response at individual sites, within program and field offices, and across the DOE complex.

  In FY 2004, evaluations were conducted at the Office of Transportation Safeguards, Savannah River Site, Brookhaven National Laboratory, Hanford, Nevada Test Site, and will be initiated at Argonne National Laboratory-West. Additionally, OA observed the December 2003 Continuity of Operations Plan (COOP) preparation exercise, evaluated the May 2004 Headquarters COOP exercise and has provided extensive support in revising the Headquarters Continuity of Operations Plan and evaluating the adequacy of necessary COOP logistics and support.

- **Environment, Safety and Health Appraisals** ... **4,000** **4,000** **4,000**

  Environment, safety, and health evaluations focus on ISM implementation; environment, safety, and health performance; and relevant environment, safety, and health topics such as radiation protection, criticality safety, industrial hygiene, and occupational medicine. ISM reviews focus on management systems such as self-assessments, lessons learned, deficiency tracking, root cause analysis, and reporting of compliance deficiencies and events. Periodic oversight is also performed of environment, safety, and health performance during all phases of major projects, such as construction, recovery, and stabilization of hazardous materials, decommissioning, and environmental restoration. Environmental portions of inspections provide independent evaluations of a wide variety of environmental protection and restoration activities, including the effectiveness of environmental programs in accordance with Executive Orders. Reviews are conducted of selected areas of current interest (i.e., focus areas), such as compliance with the applicable requirements of 10 CFR 803 Subpart B, electrical safety, and disposition of legacy hazards. Also reviews are conducted of selected essential systems to ensure that they can perform their safety functions. As a result, these evaluations provide a significant benefit to the Department by improving safety and promoting adherence to applicable Federal and State

regulations and DOE and industry standards in such areas as safety and health, radiation protection, waste management, and fire protection.

In FY 2004, evaluations were conducted at Nevada Test Site, Office of Repository Development (Yucca Mountain), Savannah River Site, Pacific Northwest National Laboratory, Kansas City Plant, Oak Ridge National Laboratories, and will be initiated at Lawrence Livermore National Laboratories. In August, a special safety review was initiated at Los Alamos National Laboratory to assist in the restart efforts that are necessary as a result of the stand-down that commenced in July following a series of safety and security incidents. Additionally, a special investigation of worker exposures and medical services at Hanford and the River Protection Project was completed at the request of the Deputy Secretary.

- **Special Reviews** **500** **500** **500**

Special reviews and studies are performed of policies, programs, and their implementation in the field to identify program corrections. These special studies and special reviews are often conducted at the request of the Secretary and other senior Departmental managers to examine issues and problems not normally covered by ongoing oversight functions (i.e., safeguards and security, cyber security, emergency management, and environment, safety, and health). The results of these reviews have been of particular interest to senior DOE managers and Congress, and their evaluation and analysis has resulted in substantial improvements to programs throughout DOE. Special reviews completed or in progress in FY 2004 include development, implementation, and analysis of Departmental management challenge corrective action plans; and development, implementation, and analysis of program plans, actions, and milestones associated with the Secretary of Energy's security initiatives announced in May 2004.

In FY 2004, independent oversight activities provided significant support to the Secretary of Energy's Security Initiatives announced on May 7, 2004. Specifically, OA is actively involved in the initiatives that address expanding cyber security performance testing, examining cyber security enhancements, developing more secure approaches to diskless computing, re-examining the design basis threat, identifying current weaknesses in protective force capabilities, and examining protective force organizational structure options. Special Department-wide reviews of protective force management and capabilities, the lock and key program, and security incident reporting were completed to provide management with an overall assessment of those programs.

Additionally, OA has been actively involved in the development of Departmental-level directives that will establish overarching principles for oversight and identify DOE oversight activities that involve assessing Federal and contractor performance. These directives are closely linked to the Department's response to DNFSB Recommendation 2004-1, Oversight of Complex High-Hazard Nuclear Operations.

A special investigation of worker exposures and medical services at Hanford and the River Protection Project was completed April 2004, at the request of the Deputy Secretary. OA also

observed the December 2003 COOP preparation exercise and evaluated the May 2004 Headquarters COOP exercise. The first unannounced cyber penetration testing ("red-teaming") of a DOE field location was completed. A special study to identify and evaluate the DOE Internet perimeter, at approximately 50 sites, was completed in cooperation with the Office of the Chief Information Officer. Additionally, a complex-wide evaluation of classified cyber security will be completed.

- **DNFSB Liaison Activities**..... **530** **617** **566**

The DNFSB liaison activities are reported directly to the Deputy Secretary, with administrative support provided by SSA. The DNFSB liaison performs critical functions that directly support the mission of the Department, including providing leadership in resolving DNFSB-related technical and management issues necessary to ensure public health and safety. This activity facilitates the Department's compliance with Congressional mandates for the Department to fully cooperate with the DNFSB and to provide ready access to such facilities, personnel, and information as the DNFSB considers necessary to carry out its responsibilities. This includes technical evaluation and analysis of DNFSB safety and management issues providing direction and advice to line managers on addressing and resolving DNFSB issues, monitoring Department-wide performance in addressing and resolving DNFSB issues, and taking action to ensure the adequacy of Department-wide performance.

Additional activities include preparing the statutorily required Annual Report to Congress on DNFSB activities; maintaining and improving the Department's Safety Issues Management Systems for DNFSB-related issues, commitments, and actions; providing monthly and quarterly analysis reports to senior DOE officials on the status of existing commitments to identify those that require additional management attention or action; and maintaining a web site that serves as the Department's central repository of official DNFSB communications, making this information available to the public and to Department and contractor personnel complex-wide.

The DNFSB liaison function also provides program direction for Department-wide implementation of the Department's Facility Representative Program. This program includes over 200 DOE Facility Representatives who provide operational oversight at hazardous facilities through the DOE complex.

The DNFSB Liaison function prepares the statutorily required Annual Report to Congress on DNFSB activities. This report includes statutory notification of any implementation plans requiring more than one year to complete. The office prepares transmittal packages for all draft DOE rules, directives, and standards that fall within the DNFSB statutory authority for review and approval and reviews DNFSB comments on DOE safety directives and resolves these comments with the responsible line managers so that final DOE rules, directives, and standards can be issued.

The DNFSB Liaison function thoroughly reviews incoming DNFSB correspondence and outgoing DOE correspondence to identify safety and management issues that must be addressed by the Department. The office identifies and supports DOE line managers and technical experts in

evaluating identified safety and management issues and determining corrective actions to resolve them and provides direction and final review of the adequacy of corrective actions to resolve identified DNFSB safety and management issues.

The office maintains and improves the Department's Safety Issues Management Systems (SIMS) for DNFSB-related issues, commitments, and actions. This system currently contains over 500 active Department commitments and actions related to DNFSB recommendations, reporting requirements, and other correspondence. On behalf of the Secretary, the DNFSB Liaison identifies the existence of DOE commitments to the DNFSB for inclusion in the SIMS and obtains descriptive status of commitments on a monthly basis. DR provides monthly and quarterly analysis reports to senior DOE officials on the status of existing commitments to identify those that require additional management attention or action. The SIMS database is password-protected and Internet-accessible from throughout the Department. The DNFSB Liaison maintains and improves public web sites on DOE/DNFSB correspondence and safety issues. The main web site includes the Department's central repository of official DNFSB communications and makes this information available to the public and to Department and contractor personnel complex-wide. Annually, 250 to 350 pieces of DNFSB/DOE correspondence are received and made available Department-wide via the Internet. Over 4,000 documents are currently available on the web site in multiple file formats for user convenience. Documents are posted in one to three business days to facilitate prompt, effective responses and corrective action. The web site also provides DNFSB points-of-contact, DOE interface protocols and direction, and useful information about the DNFSB. The DNFSB Liaison provides the Facility Representative web sit with associated technical knowledge base and training aids.

Other Related Expenses	**13,409**	**14,164**	**14,799**

Other Related Expenses provides support required for Federal staff to accomplish the SSA mission. Support includes the acquisition of security support and communications equipment, Secretarial mandated information technology support (eXCITE), Working Capital Fund services, and Federal training. The specific security support and communications purchases for SSA include the purchase of protective gear, weapons, and communications devices.

The eXCITE initiative gathers the common information technology services that were previously separately managed, and turns the management and oversight of these services into one large-scale effort. The eXCITE initiative is a one-stop-shop for all common information technology systems and services, bringing security, service, efficiency, and scale to these projects. The information technology investments support the Federal staff at Headquarters by providing support and maintenance of hardware, software, the hotline, and other desktop maintenance. Information technology hardware, connectivity, and support costs are based on a seat count and level of service requested by SSA.

The maintenance of information technology systems exclusive to SSA is also part of this budget. The Classified LAN is part of the consolidated infrastructure initiative. It includes a Secret Restricted Data network that supports SSA Headquarters users. The Secret Internet Protocol Router Network is part of

(dollars in thousands)

FY 2004	FY 2005	FY 2006

the consolidated infrastructure initiative. It provides access to the DOD classified network to effect coordination between the Departments.

Other Related Expenses also provides funding for the Working Capital Fund based on guideline estimates issued by the Working Capital Fund Manager. The Working Capital Fund was established in FY 1997 to allocate the cost of common administrative services to the recipient organizations; it covers rent and building occupancy, computer and telephone infrastructure and usage, mail service, copying, printing and graphics, procurement closeouts, supplies, online learning, CHRIS, and payroll.

Related funding also provides training for Federal staff (including tuition costs for Federal employees) to maintain the skill base required by the position.

Total Program Direction	**70,927**	**77,693**	**75,492**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Salaries and Benefits	
Based on a workforce analysis and skills evaluation performed by SSA, it has been determined that there will be a reduction of 25 FTEs in FY 2006. This reduction is due to efficiency of operations following the formation of SSA in December 2003 and the significant program and organizational restructuring completed in April 2004.	-3,159
Travel	
Travel requirements are projected to decrease based on operations forecasts.	-85
Support Services	
■ **Independent Oversight Activities**	
• Safeguards and Security Appraisals Funding increases are commensurate with the priorities associated with Secretary of Energy's Security Initiatives that call for developing an elite protective force through expanded performance testing and examining protective force enhancements and protection strategies.	+184
• Cyber Security Appraisals Funding increases are commensurate with the priorities associated with Secretary of Energy's Security Initiatives that call for expanding cyber security performance testing and examining cyber security enhancements.	+275
■ **DNFSB Liaison Activities**	
Funding requirements are reduced due to operational efficiencies.	-51
Total, Support Services	+408
Other Related Expenses	
The WCF increase is based primarily on building occupancy and infrastructure escalation. At Headquarters, IT systems costs were reduced based on implementing the mandated Extended Common Integrated Technology Environment (eXCITE) program Training is reduced due to changes in security requirements based on the adjustment of the Federal skills mix that was accomplished through reorganization. NBL other services has been increased due to adjustments for special supplies and building occupancy costs.	+635
Total Funding Change, Program Direction	**-2,201**

Support Services by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Technical Support					
Security Activities	4,181	4,092	4,092	0	0.0%
Independent Oversight Activities	12,300	12,116	12,575	+459	+3.8%
DNFSB Liaison Activities	530	617	566	-51	-8.3%
Total, Technical Support	17,011	16,825	17,233	+408	+2.4%
Management Support					
Security	1,469	1,438	1,438	0	0.0%
Total Management Support	1,469	1,438	1,438	0	0.0%
Total, Support Services	18,480	18,263	18,671	+408	+2.2%

Other Related Expenses by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Other Related Expenses					
Tuition/Training of Federal Staff	421	421	347	-74	-17.6%
Other Services Procured	7,986	8,014	7,866	-148	-1.8%
Working Capital Fund	5,002	5,729	6,586	+857	+14.9%
Total, Other Related Expenses	13,409	14,164	14,799	+635	+4.5%

Other Defense Activities
Office of Environment, Safety and Health

Overview

Appropriation Summary by Program

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Other Defense Activities					
Environment, Safety & Health (defense)	120,213	109,105	-753 [a]	108,352	56,483 [b]
Program Direction	22,953	20,414	-163 [a]	20,251	20,546
Subtotal, Other Defense Activities	143,166	129,519	-916	128,603	77,029
Use of Prior Year Balances	-500	-15,000	0	-15,000	0
Total, Other Defense Activities	142,666	114,519	-916	113,603	77,029
Energy Supply					
Environment, Safety & Health (non-defense)	6,867	8,000	-64 [a]	7,936	9,100
Program Direction	15,697	20,000	-158 [a]	19,842	20,900
Subtotal, Energy Supply	22,564	28,000	-222	27,778	30,000
Use of Prior Year Balances	0	-285	0	-285	0
Total, Energy Supply	22,564	27,715	-222	27,493	30,000
Total, Energy Supply and Other Defense Activities	165,230	142,234	-1,138	141,096	107,029

[a] Reflects distribution of 0.80% rescission required by the FY 2005 Consolidated Appropriations Act.
[b] The Employee Compensation Program will be funded in FY 2006 using prior-year carryover.

Preface

The Office of Environment, Safety and Health (EH) is committed to ensuring that the safety and health of the DOE workforce and members of the public, and the protection of the environment are integrated into all Departmental activities.

Within the Other Defense Activities Appropriation, the Office of Environment, Safety and Health has two programs: Environment, Safety and Health Programs (three subprograms) and Program Direction (three subprograms).

This overview will describe Strategic Context, Mission, Benefits and Significant Program Shifts. These items together put this appropriation in perspective.

Strategic Context

Following publication of the Administration's National Energy Policy, the Department developed a Strategic Plan that defines its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. The Office of Environment, Safety and Health performs critical functions which directly support the mission of the Department. These functions include:

- Environment – Ensure the protection of the environmental resources affected by DOE activities.

- Safety – Operate to industry standards where they are relevant and available and provide regulations for those operations that are unique to DOE; perform at a level equal to or better than private industry.

- Health – Improve DOE health protection programs through medical surveillance to identify potential health issues, health studies to understand cause, and policies and programs to protect the safety and health of workers at DOE facilities and the communities that surround them.

- Corporate Performance Assessment – Provide environment, safety and health performance evaluation and measures to ensure DOE's ES&H goals are accomplished and focus resources and senior management attention on significant and emerging issues. Ensure operating experience/lessons learned are identified and shared throughout the DOE to continuously improve performance and prevent adverse events from recurring. Provide the corporate framework to ensure quality assurance is properly applied to all DOE operations and that work is performed safely and reliably. Provide the necessary policy, guidance, and corporate direction.

- Nuclear/Occupational Safety and Health Enforcement – Carry out the statutory mandate of the Atomic Energy Act to enforce compliance with nuclear safety regulations as well as new occupational safety and health regulations.

Mission

The mission of the Office of Environment, Safety and Health is to provide the corporate leadership, performance goals, assistance, policies, programs and feedback to enable the Department of Energy to excel in mission performance while achieving excellence in safety and environmental stewardship.

Following publication of the Administration's National Energy Policy, the Department developed a Strategic Plan that defines its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals.

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. Environment, Safety and Health performs critical functions which directly support the mission of the Department. These functions include providing technical support and assistance; assessing performance; ensuring quality assurance is properly applied; developing corporate policy, guidance, rules, orders and standards; and supporting an effective collaborative radiological and non radiological health studies program.

Benefits

DOE works to identify health concerns, investigate health effects from similar operations, integrate new occupational health understanding into DOE operations, and support the Department of Labor in implementing the Energy Employees Occupational Illness Compensation Program Act. EH leverages its resources and personnel to provide DOE's line management programs with essential environment, safety and health performance expectations: environment, safety and health performance measures and analysis; management tools to promote the safe conduct of work, including the Department's Quality Assurance Program; and guidance for the protection of the environment in and around DOE sites. Integral to the Department's success is EH's skill in fostering increased awareness and providing support to line management throughout the Department, using open communications, coordinating with other industry and governmental organizations, and performance feedback on environmental, safety, and health activities, to provide the safety infrastructure that allows for and promotes the safe and environmentally responsible conduct of work.

Significant Program Shifts

Environment, Safety and Health significant program shifts are as follows:

- In FY 2006, the Office of Environmental Management will transfer the management of HEPA filter testing services responsibilities to the Office of Environment, Safety and Health. This Quality Assurance function ensures that high efficiency particulate filters used at DOE's nuclear facilities meet strict criteria to ensure public and worker safety.

Other Defense Activities
Office of Environment, Safety and Health

Funding by Site by Program

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Chicago Operations Office					
Argonne National Lab	50	0	0	0	0.0%
Brookhaven Nat'l Laboratory	120	65	65	0	0.0%
Lawrence Berkeley Nat'l Lab	310	540	540	0	0.0%
Chicago Operations Office	14,198	10,350	10,200	-150	-1.4%
Total, Chicago Operations Office	14,678	10,955	10,805	-150	-1.4%
Idaho Operations Office					
Idaho National Laboratory	135	95	95	0	0.0%
Idaho Operations Office	7,299	7,480	7,000	-480	-6.4%
Total, Idaho Operations Office	7,434	7,575	7,095	-480	-6.3%
Nevada Site Office	5,950	3,030	3,030	0	0.0%
NNSA Service Center					
Sandia National Laboratory	118	165	155	-10	-6.1%
Kansas City Plant	70	70	70	0	0.0%
Los Alamos National Laboratory	248	326	326	0	0.0%
Lawrence Livermore National Laboratory	1,815	3,120	3,370	+250	+8.0%
Pantex, LLC	50	90	90	0	0.0%
NNSA Service Center	886	2,650	0	-2,650	-100.0%
Total, NNSA Service Center	3,187	6,421	4,011	-2,410	-37.5%
Oak Ridge Operations Office					
East Tennessee Technology Park (K25)	15	20	20	0	0.0%
Oak Ridge Institute for Science and Ed.	3,155	1,770	1,770	0	0.0%
Oak Ridge Nat'l Laboratory	2,516	460	460	0	0.0%
Y-12 Site Office	0	30	30	0	0.0%
Pacific Northwest Nat'l Laboratory	575	779	719	-60	-7.7%
Oak Ridge Operations Office	2,717	4,975	775	-4,200	-84.4%
Total, Oak Ridge Operations Office	8,978	8,034	3,774	-4,260	-53.0%
Ohio Field Office	160	370	70	-300	-81.1%
Richland Operations Office					
Hanford Site	200	100	200	+100	+100.0%
AdvancedMed - Hanford	120	110	110	0	0.0%
Richland Operations Office	1,745	1,700	300	-1,400	-82.4%
Total, Richland Operations Office	2,065	1,910	610	-1,300	-68.1%

	(dollars in thousands)				
	FY 2004	FY 2005	FY 2006	$ Change	% Change
Rocky Flats Field Office	683	770	0	-770	-100.0%
Savannah River Operations Office	1,755	3,370	120	-3,250	-96.4%
Washington Headquarters					
Program Direction	19,938	17,231	17,526	+295	+1.7%
Other Washington Headquarters	78,338	68,937	29,988	-38,949	-56.5%
Total Washington Headquarters	98,276	86,168	47,514	-38,654	-44.9%
Total, Other Defense Activities	143,166	128,603	77,029	-51,574	-40.1%

Site Description

Chicago Operations Office

Chicago Operations Office, Chicago, Illinois, is responsible for overseeing the operation of contractor-operated, multi-program laboratories such as Argonne National Laboratory and Brookhaven National Laboratory.

Chicago Operations Office provides services that support the implementation and maintenance of cooperative agreements for the Former Worker Program as well as support for international health studies. In addition, this site researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

Brookhaven National Laboratory

Brookhaven National Laboratory (BNL) is located in Upton, New York, on Long Island. As a non-defense research institution, BNL is dedicated to basic and applied investigation in a multitude of scientific disciplines. BNL also provides specialized subject matter technical expertise in conducting reviews of safety analysis and risk assessment documents such as Safety Analysis Reports (SARs) and Basis for Interim Operations (BIO). BNL provides specialized technical expertise input to be used by the Federal staff to develop rules, orders, safety guides, and standards. These documents may include SARs, technical safety requirements, waste disposal standards, fire protection standards, lightning and wind protection standards, and facility operation. In addition, Brookhaven participates in the Illness and Injury Surveillance Program through collection and transmission of worker health, exposure, and demographic data in support of the Office of Health.

Lawrence Berkeley National Laboratory

Lawrence Berkeley National Laboratory, Berkeley, California, pursues basic and applied research that advances the frontiers of science and solves a broad spectrum of national problems. It is a multi-program laboratory that serves the Nation's needs in technologies and environment, safety and health activities. The site provides continuous public access to an organized, well-documented, retrievable collection of DOE health effects information through an electronic data base, the Comprehensive Epidemiologic Data Resources (CEDR). In addition, this site researches and provides employee employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

Idaho Operations Office

Idaho Operations Office, Idaho Falls, Idaho, executes a multi-program mission, and leverages the Idaho National Laboratory's expertise with emerging technology to meet the Nation's needs. The Radiological and Environmental Sciences Laboratory, which administers the DOE Worker Dosimetry Laboratory Accreditation Program, administratively reports to the Idaho Operations Office. The Analytical Services Program (ASP) provides support for development of a web based reporting system in support of the Department of Energy's Consolidated Audit Program. This site conducts DOE-wide performance evaluation and accreditation programs, provides technical support and measurement quality assurance methodologies to strengthen programs. These programs provide for technically and legally defensible results of such measurements. In addition, this site researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

Idaho National Laboratory

The Idaho National Laboratory (INL) located in Idaho Falls, executes multi-program missions and leverages expertise with emerging technology to meet the Nation's needs. INL participates in the Illness and Injury Surveillance Program through collection and transmission of worker health, exposure, and demographic data in support of the Office of Health.

Nevada Site Office

The Nevada Test Site implements DOE initiatives in stockpile stewardship, crisis management, waste management, environment, safety, and health management and programs, as well as supporting other DOE programs. The Nevada Test Site provides technical support to the Illness and Injury Surveillance Program through collection and transmission of worker health, exposure, and demographic data, in support of the Office of Health. In addition, this site researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

National Nuclear Security Administration Service Center

This site provides liaison between the National Nuclear Security Administration service center and the site contractor. In addition, this site researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

Sandia National Laboratories

Sandia National Laboratories' main laboratory is located on Kirtland Air Force Base in Albuquerque, New Mexico. Sandia provides specialized technical expertise in the evaluation of long-term dry storage of K-Basin Spent Nuclear Fuel, taking into account the associated physical and chemical changes. Sandia also provides specialized technical expertise in the development of software for radiological hazard analyses at DOE facilities. This site ensures that effective safety policies and procedures guide the operations of DOE facilities. Sandia also provides technical support to the Illness and Injury Surveillance program through collection and transmission of worker health, exposure, and demographic data, in support of the Office of Health.

Kansas City Plant

This facility produces or procures non-nuclear electronics, electromechanical, mechanical, plastic, and non-fissionable metal components for DOE's National Defense mission. Kansas City Plant participates in the Illness and Injury Surveillance Program through the collection and transmission or worker health and demographic data, in support of the Office of Health.

Los Alamos National Laboratory

Los Alamos National Laboratory (LANL) is located in Los Alamos County, northwest of Santa Fe, New Mexico. Its major activities include research and development, nuclear weapons safety, and environmental restoration. Los Alamos National Laboratory participates in the Illness and Injury Surveillance Program through the collection and transmission of worker health and demographic data in support of the Office of Health.

Lawrence Livermore National Laboratory

Lawrence Livermore National Laboratory, (LLNL), located in California's Tri-Valley region east of San Francisco, supports the Marshall Islands program by providing environmental sampling and analysis to determine the radiological conditions at the affected atolls and performs epidemiological site surveillance. LLNL provides software quality assurance expertise support to maintain the code registry that is important for nuclear safety analysis throughout the complex. Lawrence Livermore supports the development of Software Quality Assurance documentation for EPICode. EPICode is a software tool used by nuclear analysts to determine potential accident consequences for nuclear facility operation. This project will upgrade the software quality assurance to ensure that the results obtained from these calculations are accurate for DOE facilities. Lawrence Livermore also participates in the Illness and Injury Surveillance Program through the collection and transmission of worker health and demographic data, in support of the Office of Health.

Pantex Site Office

The National Nuclear Security Administration Pantex Site Office manages the Pantex Plant, a 10,500-acre site, located approximately 17 miles northeast of Amarillo, Texas. The Pantex Site provides technical support to the Illness and Injury Surveillance Program through collection and transmission of worker health, exposure, and demographic data, in support of the Office of Health.

Oak Ridge Operations Office

Oak Ridge Operations Office, Oak Ridge, Tennessee, is responsible for research and development, defense programs, environmental management, and environment, safety, and health activities. There are three major plant complexes on the Oak Ridge Reservation: Oak Ridge National Laboratory; Y-12 Plant; and the East Tennessee Technology Park, as well as the Oak Ridge Institute for Science and Education and the American Museum of Science and Energy. This site ensures that environmental analytical data is of high quality and reliability and assures that analytical data is technically defensible. The program conducts consolidated audits that also include DOE on-site laboratories to demonstrate a fair and equitable selection among laboratories selected for environmental analytical service contracts. In addition, this site researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

East Tennessee Technology Park (K25)

This site is located in the East Tennessee Technology Park on the Oak Ridge Reservation and is responsible for research and development, defense programs, environmental management, and environment, safety and health activities. Bechtel Jacobs (K25) participates in the Illness and Injury Surveillance Program through collection and transmission of worker health, exposure, and demographic data in support of the Office of Health.

Oak Ridge Associated Universities/Oak Ridge Institute for Science and Education (ORISE)

The Oak Ridge Institute for Science and Education (ORISE) is a U.S. Department of Energy facility, located on a 150-acre site in Oak Ridge, Tennessee, focusing on scientific initiatives to research health risks from occupational hazards, assess environmental cleanup, respond to radiation medical emergencies, support radiation medical emergencies, support national security and emergency preparedness, and educate the next generation of scientists. ORISE is managed by Oak Ridge Associated Universities. ORISE provides services and products that support the development, implementation, and maintenance of international health studies and the Former Worker Program screening and medical examinations for former employees who are at risk for chronic beryllium disease due to their work at DOE and analysis of data obtained on these individuals; provide technical support to the Office of Health in the areas of data management, quality assurance, analysis, report preparation, and program implementation at sites. Provides support in the administration, training, materials and follow-up services for the Office of Health activities including conferences, workshops, and training materials. ORISE is the data center for processing illness and injury surveillance data from across the complex in support of the Office of Health. ORISE provides data gathering and analysis services that support development of human reliability program polices for the medical and psychological fitness of individuals occupying safety or security sensitive positions.

Oak Ridge National Laboratory

Oak Ridge National Laboratory (ORNL), Roane County, Tennessee, is a multi-program science and technology laboratory. Scientists and engineers at the laboratory provide specialized technical expertise in environment, safety, and health activities; and restoration and protection of the environment. The laboratory provides specialized technical expertise in the development of risk-based, integrated worker safety programs through the development of input and resource information for various technical standards and guides. ORNL provides services and products that support the development, implementation, and maintenance of international health studies, design and development of descriptive epidemiologic review of defined health data, and the development of effective health communications systems. Provides support in the administration, training, materials, and follow-up services for the Office of Health activities including conference, workshops, and training materials. ORNL participates in the Illness and Injury Surveillance Program through collection and transmission of worker health, exposure, and demographic data in support of the Office of Health.

Y-12 Site Office

Y-12, located about two miles southwest of Oak Ridge, Tennessee, provides technical support to the Illness and Injury Surveillance Program through collection and transmission of worker health, exposure, and demographic data, in support of the Office of Health.

Pacific Northwest National Laboratory

Pacific Northwest National Laboratory (PNNL), Richland, Washington, develops and delivers new and effective environment, safety, and health technologies. PNNL provides technical support in preparing policies, procedures, and guides, as well as developing materials that address the process and protocols that are used for program implementation, planning, analysis of evaluation results and trends, and compilation of policy issues related to the evaluations. PNNL provides support to the international health studies program. Over the past 10 years, PNNL has supported DOE's Systematic Planning and Data Quality Objectives (DQO) initiatives. This project has evolved from general DQO training and implementation support to tools development and specific training on tools and approaches to systematic planning. DOE sponsored the initial developments of Visual Sample Plan (VSP), a software tool that ensures the right type, quality, and quantity of data are obtained to support confident decisions. VSP has evolved into a multi-agency toolkit supported by DOE, EPA, DoD, and DHS. This site ensures that effective safety policies and procedures guide the operations of DOE facilities. This site also facilitates access to cumulative dosimetry data and information resulting from studies of historical releases of contaminants that traveled off site from DOE facilities (environmental dose reconstructions). PNNL provides technical support to the Illness and Injury Surveillance Program through assistance in developing methods to estimate cumulative dosimetry exposures for current workers.

Ohio Field Office

The Department of Energy's Ohio Field Office includes five sites, four in Ohio and one in New York. Its primary mission includes overseeing the five project offices responsible for environmental restoration, waste management, and nuclear material and facility stabilization. In addition, this site researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E. Fluor Fernald is one of the five project offices responsible for environmental restoration, waste management, and nuclear material and facility stabilization. The Fernald site participates in the Office of Health programs and provides access to site records and information for use in occupational and public health studies being performed by the Department of Health and Human Services under their Memorandum of Understanding with DOE. Fernald participates in the Illness and Injury Surveillance Program through the collection and transmission of worker health and demographic data in support of the Office of Health.

Richland Operations Office

Richland Operations Office, Richland, Washington, manages waste products; develops, applies, and commercializes technologies; manages environment, safety, and health activities; and supports cleanup and environmental restoration at the Hanford site. In addition, this site researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

Hanford Site

This site is located in Richland, Washington and manages environment, safety and health activities and supports cleanup and environmental restoration at the Hanford site. The Analytical Services Program work with Bechtel Hanford, Inc. supports the development of software development toolkits to assist Departmental field element sites in its environmental remediation and clean-up decision-making and implementation. The Visual toolkit enables environmental professionals to use the Data Quality Assessment process to make defensible, cost-effective decisions as simply as possible. This site ensures that effective safety policies and procedures guide the operations of DOE facilities.

AdvancedMed - Hanford

This site is located in Richland, Washington on the Hanford Site and supports the Operations Office. AdvancedMed – Hanford participates in the Illness and Injury Surveillance Program through collection and transmission of worker health, exposure, and demographic data in support of the Office of Health. AdvanceMed also coordinates with the University of Washington to offer a resource to current Hanford Tank Farm workers for independent medical screening.

Rocky Flats Field Office

Rocky Flats is a former nuclear weapons facility located approximately 16 miles northwest of Denver, Colorado. Rocky Flats no longer has a production mission. Its mission now is to clean up its nuclear and chemical contamination while decommissioning the site. This site also researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

Savannah River Operations Office

Savannah River Operations Office, Aiken, South Carolina, serves national interest by ensuring that programs, operations, and resources at the Savannah River Site are managed in a safe, open, and cost-effective manner to: support current and future national security requirements and conduct mission-supportive research. Savannah River Operations and the contractors operating the Savannah River Site support the Office of Health, provide access to site records and information for use in occupational and public-health related studies being performed by the Department of Health and Human Service under their Memorandum of Understanding with DOE. Savannah River Site supports the Office of Health through participation in the Illness and Injury Surveillance Program. This site also researches and provides worker employment, medical and exposure records in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act, Part E.

Washington Headquarters

The Office of Environment, Safety and Health (EH) Headquarters, located in the Washington, D.C. area, supports the EH mission by funding Federal staff responsible for directing, administering, and supporting the EH program in the areas of facility safety, corporate performance assessment, health, enforcement, and worker advocacy. In addition, Federal staff is responsible for management, policy, personnel, technical/administrative support activities, budget, finance, and contracts.

Environment, Safety and Health (defense)

Funding Profile by Subprogram

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Environment, Safety and Health					
Corporate Safety Programs.....	9,032	10,883	-75	10,808	10,883
Health.....	64,335	55,222	-381	54,841	45,600
Employee Compensation Program..	46,846	43,000	-297	42,703	0
Total, Environment Safety and Health.....	120,213	109,105	-753	108,352	56,483
Less Use of Prior-Year Balances.....	-500	-15,000	0	-15,000	0
Total, Environment Safety and Health.....	119,713	94,105	-753	93,352	56,483

Public Law Authorizations:
Public Law 83-703, "Atomic Energy Act of 1954", as amended
Public Law 100-408, "Price-Anderson Amendments Act of 1988"
Public Law 106-398, "Energy Employees Occupational Illness Compensation Program Act of 2000"
Public Law 103-337, "National Defense Authorization Act of 1995"
Public Law 108-188, "Compact of Free Association Amendments Act of 2003"
Public Law 99-239, "Compact of Free Association Act of 1985"
Public Law 95-134, "Marshall Islands (Related to Rongelap and Utirik Atolls)"
Public Law 96-205, "Trust Territory of the Pacific Islands"
Public Law 95-91, "Department of Energy Organization Act"
Public Law 103-62, "Government Performance and Results Act of 1993"
42 U.S.C. Section 7274 "Program to Monitor DOE Workers Exposed to Hazardous and Radioactive Substances"

Mission

The mission of the Office of Environment, Safety and Health (EH) is to provide leadership and Departmental direction through line programs to protect the workers, the public, and the environment.

Benefits

Within the Other Defense Activities appropriation, EH plays a key role in achieving the Department's mission. A commitment to excellence is achieved by continuously striving for improvement through: developing meaningful programs and policies; enforcing nuclear safety as well as new occupational safety and health regulations; conducting reviews of environment, safety, and health performance; providing technical services, and information sharing; and ensuring quality assurance programs, including policies and standards, are in place and functioning properly across the Department. Open communication, participation, and performance feedback on EH activities from affected parties are integral to EH's success. The hallmark and highest priority of all EH activities is daily excellence in the protection of workers, the public, and the environment.

Corporate Safety Programs

Funding Schedule by Activity

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Comparable Appropriation	FY 2006 Request	$ Change	% Change
Corporate Safety Programs.....	3,946	5,325	5,400	+75	1.4%
Radiological and Environmental Sciences Laboratory.....	3,800	4,174	4,174	0	0.0%
Analytical Services Program.....	1,286	1,309	1,309	0	0.0%
Total, Corporate Safety Programs....	9,032	10,808	10,883	+75	0.7%

Description

Corporate Safety Programs serve a crosscutting safety function for the Department and its stakeholders in assuring excellence and continuous improvement in environment, safety and health in the conduct of its missions and activities. Elements that comprise Corporate Safety Programs are: Performance Assessment, the Quality Assurance Program, Information Management, the Facility Safety Program, Price Anderson Enforcement, Radiological and Environmental Sciences Laboratory, and the Analytical Services Program.

Benefits

This program conducts activities that are critical to the Department's ability to monitory the status of environment, safety and health across the complex; to proactively identify and resolve emerging safety issues and adverse trends; and to assure continuous improvement in the protection of workers, communities, and the environment from the hazards associated with changing DOE missions and activities. The program also serves our national security mission by assuring the effective integration of safety and success of mission programs, including security of our energy infrastructure, research and development, stockpile stewardship, and accelerated cleanup of DOE's excess sites and environmental contamination.

Detailed Justification

	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006
Corporate Safety Programs.....	**3,946**	**5,325**	**5,400**

Corporate Safety Programs include funding for the ES&H Performance Assessment Program, the Quality Assurance Program, Information Management, the Facility Safety Program and Price Anderson Enforcement.

The Performance Assessment Program provides analysis and certification of DOE's performance in protecting the public, workers, and the environment by synthesizing operational information to support decision-making and continuous ES&H improvement across the DOE complex. This program supports the setting of ES&H performance expectations, performance measurements, continuous improvement, and implements an enhanced operating experience/lessons learned program in response to Defense Nuclear Facilities Safety Board Recommendation 2004-1. This Operating Experience Program will be crucial in the Department's follow-up to internal and external accidents and events such as the Columbia Shuttle Accident and Davis-Bessie Reactor Vessel Head Corrosion Event. This program is also responsible for the Suspect/Counterfeit Items identification and investigation process. This activity is also an ongoing high priority commitment made to the Defense Nuclear Facilities Safety Board by the Secretary.

The Quality Assurance Program was established in FY 2003 to address corporate quality assurance issues identified by the General Accounting Office, Defense Nuclear Facilities Safety Board, and other quality assurance issues in the Department. The Office of Quality Assurance Programs provides DOE corporate leadership that includes quality assurance information, corporate policy and guidance, and certification to support DOE mission accomplishment across the DOE complex. This program establishes requirements and policies to support existing activities such as High Efficient Particulate Air (HEPA) filter testing, central registry for safety related computer software, and the DOE Self-Assessment Certification Program

In FY 2006, the Office of Environmental Management will transfer the management of HEPA filter testing services responsibilities to the Office of Environment, Safety and Health. The Filter Test Facility will improve the Department's quality assurance function to serve all Departmental programs. DOE has committed to conduct 100 percent independent testing of HEPA filters installed in safety systems (safety class and safety significant) and habitability systems. The Office of Environmental Management FTF operations resulted in an average of 2,600 filters tested annually from DOE nuclear facilities. The FTF operation is necessary because of the critical nature of the filter usage in DOE facilities in mitigating radioactive exposure to the public, workers and the environment. DOE-STD-3020-97, Specifications for HEPA Filters Used by DOE Contractors, requires that each filter be tested by both the manufacturer and FTF.

Information Management is a critical component of corporate safety programs. This program provides both web pages and web-based database systems. These systems will be re-engineered for efficiency by consolidating existing databases and utilizing the latest technological capabilities to distribute

information, including health studies communications management capability and web-based health studies status.

To address immediate ES&H issues in the Department, the Facility Safety Program performs appraisals including accident investigations, facility authorizations bases, and safety allegations. Special safety reviews are conducted for nuclear hazards, criticality safety, seismic analysis, fire protection, emergency operations, facility design, and the startup and restart of facilities.

The EH Enforcement program carries out the statutory mandate of the Price-Anderson Amendments Act (PAAA) of 1988 to enforce compliance with Code of Federal Regulations nuclear safety requirements at DOE sites and enforcement of the Worker Occupational Safety and Health Rule.

Corporate Safety Programs also includes funding for the Radiological and Environment Sciences Laboratory and the Analytical Services Program as follows:

Radiological and Environmental Sciences Lab..... 3,800 4,174 4,174

The Radiological and Environmental Sciences Laboratory (RESL) is a reference laboratory that conducts performance evaluation and accreditation, provides technical support and measurement, and quality assurance methodologies to programs such as the DOE Laboratory Accreditation Program, the Mixed Analyte Performance Evaluation Program, and other analytical chemistry services. The responsibility to operate RESL was transferred from EM to EH in FY 2004.

Analytical Services Program..... 1,286 1,309 1,309

The Analytical Services Program ensures that environmental analytical laboratory data is of high quality and reliability and assures that analytical data is technically and legally defensible. The program supports EH's information investments to meet the need for the Environmental Management Consolidated Audit Program for auditing commercial laboratories.

Total, Corporate Safety Programs..... 9,032 10,808 10,883

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
■ Corporate Safety Programs – No significant change……	+75
Total Funding Change, Corporate Safety Programs.....	**+75**

Health Programs

Funding Schedule by Activity

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Comparable Appropriation	FY 2006 Request	$ Change	% Change
Health					
Radiation Effects Research Foundation (RERF).....	13,500	14,000	14,000	0	+0.0%
Marshall Islands.....	6,300	6,000	6,000	0	+0.0%
Other Health Programs.....	44,535	34,841	25,600	-9,241	-26.5%
Total, Health.....	64,335	54,841	45,600	-9,241	-16.9%

Description

Health programs has three major areas: the Radiation Effects Research Foundation, Marshall Islands, and Other Health Programs. Ongoing activities and programs include the Former Worker Program (a nationwide program of medical screening to identify work related health affects); Health Studies (to investigate and identify work related injury and illness in the DOE worker population and populations surrounding DOE sites); International Health Studies (support for ongoing health studies in Russia, Spain and Japan, as well as health care and resettlement activities in the Marshall Islands); and Worker Safety and Health and Occupational Medicine Programs (to publish DOE worker safety and health and occupational medicine program performance expectations and promote preventive medicine)

Benefits

The Health benefits include the establishment and enhancement of the scientific basis for developmental, national and international worker protection policy and standards that provide levels of protection appropriate for the risk posed by hazards present at DOE sites.

Detailed Justification

(dollars in thousands)		
FY 2004	FY 2005	FY 2006

Radiation Effects Research Foundation..... 13,500 14,000 14,000

Under a bi-National agreement between the U.S. and Japan, the Radiation Effects Research Foundation (RERF) epidemiologic studies and medical surveillance program provides for the life span study of Hiroshima and Nagasaki exposed population. The results of these studies create the scientific basis for standards setting bodies to establish national and international worker, public and environmental radiation protection policy. In FY 2005, Japan program scientists completed the third fundamental revision of doses and radiation risk estimates for use by the radiation protection standards setting community. In FY 2006, recommendations will be made for radiation protection standards based on data from the revised doses.

Marshall Islands..... 6,300 6,000 6,000

The request funds Public Laws 99-239 and 108-188, the Compact of Free Association between the U.S. and Republic of the Marshall Islands. The Health program includes a special medical care program for a limited group of radiation–exposed individuals in the Marshall Islands and support for the resettlement of displaced populations. In FY 2005, the special medical program provided annual medical screening examinations and cancer care to about 200 people; the environmental monitoring program focused on completing briefing documents on the current radiological status of the four atolls included in the program. In FY 2006, the medical program will continue to provide annual examinations and cancer care; a major environmental mission to Bikini, Enewetak, and Rongelap Atolls will collect samples to assist atolls in resettlement decision-making.

Other Health Programs..... 44,535 34,841 25,600

Other Health Programs includes funding for Occupational Health, Public Health, Epidemiological Studies, and International Health Studies.

	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006

- **Occupational Health…..... 15,150 12,500 12,500**

  The Former Worker Program supports the Office of Health Studies mission and strategic response by evaluating the effects of DOE's past operations on the health of former workers. Teams of health experts independently evaluate DOE site hazards and exposures, and offer medical screening to former workers who may be at significant risk for occupational diseases. In FY 2005, the Former Worker Program has been restructured to provide services to workers not already covered by the pilot projects, and initiated a 2-year expansion of medical screening services to all former workers throughout the DOE complex through a combination of: 1) new site-specific projects at several defense nuclear facilities that had not yet been served; and 2) a new nationwide program to serve former workers from other DOE sites. The Radiation Emergency Accident Center/Training Site (REAC/TS) maintains the capability to provide rapid response medical expertise and training to address radiological accidents. In FY 2005, REAC/TS has developed telemedicine capabilities in Oak Ridge for emergency response coordination and expanded training programs, as well as identify resource needs to reestablish the only national capability to conduct cytogenetic studies in response to a radiological incident. In FY 2006, REAC/TS will fully implement the telemedicine capability and investigate expansion of the program to other DOE sites. REAC/TS will reinstitute the capability to conduct cytogenetic studies to be able to quickly determine an individual's radiation dose in the event of a radiological or dirty bomb event.

- **Public Health……..… 14,610 6,700 6,700**

  The Public Health program supports independent epidemiologic studies relevant to DOE workers and neighboring communities by the National Institute for Occupational Safety and Health (NIOSH), the National Center for Environmental Health (NCEH), and the Agency for Toxic Substances and Disease Registry (ATSDR) through a Memorandum of Understanding with the Department of Health and Human Services. These studies inform the DOE and stakeholders of adverse health effects that DOE operations may have had on DOE workers and the public. In FY 2005, Department of Health and Human Services completed six studies of cancer including a study of chronic lymphatic leukemia, several environmental dose reconstruction projects, and five Public Health Assessments. In FY 2006, a facility record review of Los Alamos National Laboratory will be completed as the first stage in determining if an environmental dose reconstruction is warranted; and Public Health Assessments for the Savannah River and the Oak Ridge facilities will be published.

	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006

- **Epidemiological Studies……..…** **3,295** **3,100** **3,100**

  Epidemiologic Studies collect both health and exposure data to document and demonstrate effects of radiation and other hazards to current DOE workers and the public and to validate current Departmental protection policies. The Illness and Injury Surveillance program provides an ongoing assessment of the health of current DOE contractor workers and provides a mechanism to address health concerns of these workers. The U.S. Transuranium Registries assure the accurate determination of worker radiation exposures through the analysis of donated organs and tissues of deceased worker with internal depositions of transuranic material. Analysis of these data increases global knowledge and understanding of radioactive materials in humans to allowing for increased accuracy of determining worker radiation dose from internal exposures. This information is critical to the establishment of national and international worker radiation protection policy concerning worker dose limits associated with transuranic exposure.

- **International Health Studies……** **4,765** **3,300** **3,300**

  The International Health Studies program supports the upgrading and validation of our knowledge of radiation health effects among workers and populations exposed to ionizing radiation as a result of accidents or environmental contamination in the former Soviet Union, and Spain. Under bi-National agreements between the U.S. and the Russian Federation, the DOE and the National Cancer Institute jointly sponsor four international studies to determine any adverse health effects from exposure to radiological contamination from Chernobyl on the populations of Belarus, Ukraine, and cleanup workers. Epidemiologic studies of Russian workers at the Mayak Production Facility and other facilities in Russia identify exposure levels where adverse health effects on a large worker population exposed to low and moderate levels of radiation and support the establishment of international and national radiation protection standards and policy. Under a bi-National agreement, the DOE and Spain jointly sponsor Project Indalo, which provides support for medical surveillance and environmental monitoring of the spread of plutonium contamination due to a USAF aircraft accident over Spain.

  In FY 2005, the Russian Health Studies program published new dose estimates for Mayak facility workers and a study of leukemia among Chernobyl liquidators. The Spain program completed a review of the annual scientific program for Project Indalo. In FY 2006, the Russian Health Studies program will publish updated cancer risk estimates for specific tissues and seek FDA approval for a new blood test to measure radiation exposure.

	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006
▪ **Congressionally Directed Activities…….** Funding for the following projects was directed by Congress to be included: DOE Worker Records Digitization Project in Nevada; medical monitoring at the Gaseous Diffusion Plants at Paducah, Kentucky, Portsmouth, Ohio, and Oak Ridge, Tennessee; Iowa Army Ammunition Plant assistance in collecting requisite medical records and completing claims for workers and retirees; beryllium screening and outreach program for workers employed at vendors in the Worchester, Massachusetts area who supplied beryllium to the Atomic Energy Commission; University of Washington's Former Hanford Production Workers Medical Screening Program; and medical screening for current Hanford tank farm workers consistent with the July 2004 NIOSH Health Hazard Evaluation Report.	**6,715**	**9,241**	**0**
Total Health…….....	**64,335**	**54,841**	**45,600**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Other Health Programs	
■ Eliminates funding for Congressionally directed activities…..……..….	-9,241
Total Funding Change, Health Programs.....	**-9,241**

Employee Compensation Program

Funding Schedule by Activity

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Comparable Appropriation	FY 2006 Request	$ Change	% Change
Employee Compensation Program.....	46,846	42,703	0	-42,703	-100.0%
Total, Employee Compensation Prog.	46,846	42,703	0	-42,703	-100.0%

Description

In FY 2006, the Employee Compensation Program will continue record search activities in support of the Department of Labor's implementation of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) Part E.

Benefits

Record search activities are necessary for employment verification and documentation of exposures to toxic substances as well as information on toxic substances in use at DOE facilities.

Detailed Justification

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Employee Compensation Program.....	**46,846**	**42,703**	**0**

In FY 2005, Congress passed the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (Public Law 108-375) which directed that Part D of the original EEOICPA be absolved and established Part E. In FY 2006, the Employee Compensation Program will continue record search activities in support of the Department of Labor's implementation of EEOICPA Part E. Record search activities are necessary for employment verification and documentation of exposures to toxic substances as well as information on toxic substances in use at DOE facilities. These activities will be funded using prior-year carryover ($9 million).

Total, Employee Compensation Program.....	**46,846**	**42,703**	**0**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Employee Compensation Program	
■ FY 2006 activities will be funded using prior-year carryover……	-42,703
Total Funding Change, Employee Compensation Program.....	**-42,703**

Program Direction

Funding Profile by Category

(dollars in thousands/whole FTEs)

	FY 2004 Comparable Appropriation	FY 2005 Comparable Appropriation	FY 2006 Request	$ Change	% Change
Idaho Operations Office					
Salaries and Benefits	293	318	332	+14	+4.4%
Travel	6	6	6	0	+0.0%
Other Related Expenses	1	1	1	0	+0.0%
Total, Idaho	300	325	339	+14	+4.3%
Full Time Equivalents	2	2	2	0	0.0%
Radiological and Environmental Sciences Laboratory					
Salaries and Benefits	2,645	2,623	2,611	-12	-0.5%
Travel	50	47	46	-1	-2.1%
Other Related Expenses	5	5	4	-1	-20.0%
Total, RESL	2,700	2,675	2,661	-14	-0.5%
Full Time Equivalents	18	17	16	-1	-5.9%
Headquarters					
Salaries and Benefits	19,531	16,902	17,200	+298	+1.8%
Travel	302	287	285	-2	-0.7%
Other Related Expenses	120	62	61	-1	-1.6%
Total, Headquarters	19,953	17,251	17,546	+295	+1.7%
Full Time Equivalents	120	112	109	-3	-2.7%
Total Program Direction					
Salaries and Benefits	22,469	19,843	20,143	+300	+1.5%
Travel	358	340	337	-3	-0.9%
Other Related Expenses	126	68	66	-2	-2.9%
Total, Program Direction	22,953	20,251	20,546	+295	+1.5%
Full Time Equivalents	140	131	127	-4	-3.1%

Mission

Program Direction in the Other Defense Activities account provides overall direction and support for the Office of Environment, Safety and Health (EH) defense programs to ensure that all operations are conducted in the most efficient and effective manner.

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. Environment, Safety and Health performs critical functions which directly support the mission of the Department. The Office of Environment, Safety and Health performs critical functions which directly support the mission of the Department. These functions include funding for a Federal staff that has the technical expertise to carry out the essential EH mission. The EH mission requires experts to develop overall environment, safety, and health policy for DOE sites and facility operations; to provide a central and coordinated source of scarce technical expertise to all field DOE; provide a central clearing house for information, analysis and feedback regarding new efforts, present activities, and unforeseen occurrences taking place at the multitude of diverse facilities within the DOE complex; provide the Department with the capability, as well as health studies endeavors; and to perform activities relative to environment, safety, and health programs across the DOE complex. Program Direction includes funding to support RESL and the Analytical Services Program staff; all costs of transportation, subsistence, and incidental expenses for EH's Federal employees in accordance with Federal Travel Regulations and training for EH Federal staff.

Detailed Justification

	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006
Salaries and Benefits.....	**22,469**	**19,843**	**20,143**

Salaries and Benefits reflect the FTE split between Energy Supply and Other Defense Activities. This category funds full-time permanent and other than full-time permanent employees' salaries, overtime pay, cash incentive awards, lump sum leave payments, Senior Executive Service, other performance awards, and payments to the worker's compensation.

Travel.....	**358**	**340**	**337**

EH travel requirements are in line with the EH Federal staff levels and currently estimated mission essential travel needs.

Other Related Expenses.....	**126**	**68**	**66**

This category provides for the essential training activities as well as Working Capital Fund expenditures. The Working Capital Fund covers non-discretionary costs such as space utilization, computer and telephone usage, mail service, supplies and electronic services. Funding also supports EH office expenditures for printing and reproduction, telecommunication needs, ADP maintenance and training for Federal staff, including the training course registration fees for EH Federal employees. Provides training and course registration costs for EH employees.

Total, Program Direction.....	**22,953**	**20,251**	**20,546**

Explanation of Funding Changes

	FY 2005 vs FY 2006 ($000)
Salaries and Benefits	
▪ Reflects government-wide increase for pay and personnel related costs for 127 EH full-time equivalent employees……	+906
▪ Reflects salary and benefit costs avoided by reducing the EH workforce by 4 FTEs……..	-606
Travel	
▪ Reflects the government-wide 2% non-pay increase (+$7) and travel costs avoided by reducing the EH workforce by 4 FTEs (-$10)……..	-3
Other Related Expenses	
▪ Reflects other costs avoided reducing the EH workforce by 4 FTEs……	-2
Total Funding Change, Program Direction…….	**+295**

Other Related Expenses by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Other Related Expenses					
Training.....	126	68	66	-2	-2.9%
Total, Other Related Expenses.....	126	68	66	-2	-2.9%

Other Defense Activities
Office of Legacy Management

Overview

Appropriation Summary by Program

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Other Defense Activities					
Legacy Management……..	35,472	46,895	-375	46,520	45,076
Subtotal, Other Defense Activities…...	35,472	46,895	-375	46,520	45,076
Less Use of Prior Year Balances….	-1,500	0	0	0	0
Total, Other Defense Activities….....	33,972	46,895	-375	46,520	45,076
Energy Supply					
Legacy Management…….....	28,189	31,130	-247	30,883	33,522
Subtotal, Energy Supply…….....	28,189	31,130	-247	30,883	33,522
Less Use of Prior Year Balances….	0	-266	0	-266	0
Total, Energy Supply……..…..	28,189	30,864	-247	30,617	33,522
Total, Other Defense Activities and Energy Supply……...	62,161	77,759	-622	77,137	78,598

Preface

During FY 2006, the Department continues its efforts to reduce risk to human health and the environment at its contaminated sites. By conducting the long-term surveillance and maintenance of remediated sites and ensuring pension and benefit continuity, the Office of Legacy Management allows Environmental Management to concentrate on further risk reduction and site closure.

Within the Energy and Water, Other Defense Activities appropriation, the Office of Legacy Management (LM) has one subprogram: Legacy Management.

This Overview will describe Strategic Context, Mission, Benefits, Strategic Goals, and Funding by General Goals. These items together put the appropriation in perspective. The Annual Performance Results and Targets, Means and Strategies, and Validation and Verification sections address how the

goals will be achieved and how performance will be measured. Finally, this Overview will address Significant Program Shifts.

Strategic Context
Following publication of the Administration's National Energy Policy, the Department developed a Strategic Plan that defines its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. Each appropriation has developed quantifiable goals to support the general goals. Thus, the "goal cascade" is the following:

Department Mission → Strategic Goal (25 yrs) → General Goal (10-15 yrs) → Program Goal (GPRA Unit) (10-15 yrs)

To provide a concrete link between budget, performance, and reporting, the Department developed a "GPRA Unit" concept. Within DOE, a GPRA Unit defines a major activity or group of activities that support the core mission and aligns resources with specific goals. Each GPRA Unit has completed or will complete a Program Assessment Rating Tool (PART). A unique program goal was developed for each GPRA Unit. A numbering scheme has been established for tracking performance and reporting.

The goal cascade accomplishes two things. First, it ties major activities for each program to successive goals and, ultimately, to DOE's mission. This helps ensure the Department focuses its resources on fulfilling its mission. Second, the cascade allows DOE to track progress against quantifiable goals and to tie resources to each goal at any level in the cascade. Thus, the cascade facilitates the integration of budget and performance information in support of the GRPA and the President's Management Agenda (PMA).

Mission
The mission of the Office of Legacy Management is to ensure protection of human health and the environment through effective long-term stewardship of land, structures, facilities, and records, and oversee the Department's pensions and post retirement benefits (PRB) i.e., retiree medical and life insurance) responsibilities for former contractor employees.

Benefits
The greatest benefit of the Office of Legacy Management is to serve as a visible demonstration of the Department's resolve to honor its commitments to the communities near its remediated facilities and to the former contractor work force.

The Office of Legacy Management programs provide benefits to the Department following site closure. For sites where cleanup is completed, Legacy Management programs ensure that the remediation measures implemented during closure are protecting human health and the environment and that labor commitments for the contractor work force are being satisfied. By managing the real and personal property assets that remain after cleanup and closure, Legacy Management helps the Department reduce the magnitude of its physical resource management and the costs associated with such management.

Strategic, General, and Program Goals
The Department's Strategic Plan identifies four strategic goals (one each for defense, energy, science, and environmental aspects of the mission plus seven general goals that tie to the strategic goals. The Legacy Management appropriation supports the following goal:

Environment Strategic Goal: To protect the environment by providing a responsible resolution to the environmental legacy of the Cold War and by providing for the permanent disposal of high-level radioactive waste.

General Goal 6, Environmental Management: Accelerate cleanup of nuclear weapons manufacturing and testing sites, completing cleanup of 108 contaminated sites by 2025.

The programs funded have one Program Goal that contributes to the General Goal in the "goal cascade". This goal is:

Program Goal 06.26.00.00: Legacy Management – By 2015, the Office of legacy Management will be responsible for: the cost effective management of land, structures, facilities and/or records for over 120 sites; employee benefits for the Department's former contractor work force at seven sites; and the disposal of real property at ten sites.

Contribution to General Goal
The Legacy Management Program contributes to this goal by managing the long-term surveillance and maintenance at sites where remediation has been essentially completed, allowing the Environmental Management program to concentrate its efforts on continuing to accelerate cleanup and site closure resulting in reduced risks to human health and the environment and reduced landlord costs. The Legacy Management program is also now the manager of some pension and benefit programs to meet the Department's contractual commitments.

Funding by General and Program Goal

	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006
General Goal 6			
General Goal 6, Environmental Management Program Goal 06.26.01.00, Legacy Management…….……...…..	22,281	33,425	31,421
Subtotal, General Goal 6 (Other Defense Activities).……...……	22,281	33,425	31,421
All Other			
Program Direction……..…….....……..	13,191	13,095	13,655
Total, General Goal 6 (Other Defense Activities)……...…….	35,472	46,520	45,076

Major FY 2004 Accomplishments

- The Department established the Office of Legacy Management which will allow the Office of Environmental Management to focus on site cleanup and closure and also increase the visibility and accountability of long-term remediation measures.

- Conducted required site inspections and other reviews at all sites specified in legal, regulatory, and other commitments.

Annual Performance Results and Targets

FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Legacy Management Program/Legacy Management Subprogram					
No comparable measures in FY 2001	No comparable measures in FY 2002	No comparable measures in FY 2003	No comparable measures in FY 2004	Ensure continued effectiveness of cleanup remedies through surveillance and maintenance activities at Pinellas and Maxey Flats in accordance with legal agreements	Ensure continued effectiveness of cleanup remedies through surveillance and maintenance activities at five sites in accordance with legal agreements
Supported local community transition activities that created or retained 25,000 to 27,500 private sector jobs by the end of FY 2001	Supported local community transition activities that created or retained 27,500 to 29,000 private sector jobs by the end of FY 2002	Supported local community transition activities that created or retained 29,000 to 30,500 private sector jobs by the end of FY 2003	Supported local community transition activities that created or retained 30,500 to 31,000 private sector jobs by the end of FY 2004	No comparable measures in FY 2005	No comparable measures in FY 2006
Efficiency Measure *No comparable measures in FY 2001*	*No comparable measures in FY 2002*	*No comparable measures in FY 2003*	*No comparable measures in FY 2004*	*No comparable measures in FY 2005. A baseline of program direction divided by the total appropriation (excluding Congressionally Directed Activities) is 20.6 percent*	*Reduce the ratio of program direction to the appropriation by1 percent from the FY 2005 baseline*

Means and Strategies
The LM Program will use various means and strategies to achieve its program goal. However, various external factors may impact the ability to achieve the goal. The program also performs collaborative activities to help meet its goal.

The Department will implement the following means:

- Long-term surveillance and maintenance will be performed in accordance with the regulatory decisions for each site. Activities range from maintaining records to active maintenance by on-site contractors.

- Adequate staffing will be maintained to oversee the program. A large portion of the surveillance and maintenance will be performed by contractors.

The Department will implement the following strategies:

- The Office of Legacy Management (LM) will only accept responsibility for a site after all remedies are in place and operating.

The following external factors could affect LM's ability to achieve its strategic goal:

- Significant changes in remedy performance could cause the site to be returned to EM for further remediation.

In conducting the program's surveillance and maintenance functions, LM performs the following collaborative activities:

- Evaluation of remedy performance, as determined by surveillance and maintenance activities, is coordinated with regulators, local communities, and other stakeholders.

Validation and Verification
The Department is operating a performance tracking system to measure performance. The Office of Management, Budget, and Evaluation has developed action plans for the primary functions. Quarterly updates for sites where surveillance and maintenance has been conducted are reported using an automated system.

For payments of medical benefits or other activities not tracked by the automated system, the Office of Legacy Management will obtain quarterly updates to judge progress of the programs.

The Legacy Management program has not performed a Program Assessment Rating Tool (PART) evaluation to date but such a review and the measures resulting from it would also provide verification.

The observed results of surveillance and maintenance activities will be recorded as notes and retained as long as specified in Federal requirements for records retention.

Other Defense Activities
Office of Legacy Management

Funding by Site by Program

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Idaho Operations Office…….....	250	0	0	0	0.0%
Lexington Office					
Paducah Gaseous Diffusion Plant…….....	550	0	0	0	0.0%
Portsmouth Gaseous Diffusion Plant…….	550	0	0	0	0.0%
Total, Lexington Office……...……	1,100	0	0	0	0.0%
Nevada Operations Office……..……	250	0	0	0	0.0%
NNSA Service Center					
Los Alamos Site Office……..…..	250	0	0	0	0.0%
Pinellas Plant…….	5,262	7,688	7,603	-85	-1.1%
Sandia Site Office……..	250	0	0	0	0.0%
Total, NNSA Service Center……...……...	5,762	7,688	7,603	-85	-1.1%
Oak Ridge Operations Office……..	250	0	0	0	0.0%
Ohio Field Office					
Mound Plant……...……..	839	3,968	0	-3,968	-100.0%
Richland Operations Office…….	250	0	0	0	0.0%
Rocky Flats Field Office……..……..	2,650	496	0	-496	-100.0%
Savannah River Operations Office					
Carlsbad Area Office……	250	0	0	0	0.0%
Savannah River Operations Office…...…	250	0	0	0	0.0%
Total, Savannah River Operations Office..	500	0	0	0	0.0%
Washington Headquarters					
Grand Junction Office…..……....	7,186	11,284	11,248	-36	-0.3%
Morgantown Office……..……...	0	7,936	0	-7,936	-100.0%
Washington Headquarters…..…….	16,435	15,148	26,225	+11,077	+73.1%
Subtotal, Washington Headquarters……	23,621	34,368	37,473	+3,105	+9.0%
Total, Other Defense Activities…...……	35,472	46,520	45,076	-1,444	-3.1%

Site Description

Idaho Operation Office

The Idaho facilities are located north and west of Idaho Falls, ID. They have experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent community. The community reuse organization was established as a focal point to stabilize the local economy. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs.

Lexington Office
Paducah Gaseous Diffusion Plant
The Paducah Plant, located in Paducah, KY, passed to private ownership in 1998. The gaseous diffusion plant has experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent communities. The community reuse organization was established as a focal point to stabilize the local economies. Funding for the community reuse organizations has been used to stabilize the economies in the communities adjacent to the plants by creating or retaining jobs.

Portsmouth Gaseous Diffusion Plant
The Portsmouth Plant, located in Piketon, OH, passed to private ownership in 1998. The gaseous diffusion plant has experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent communities. The community reuse organization was established as a focal point to stabilize the local economies. Funding for the community reuse organizations has been used to stabilize the economies in the communities adjacent to the plants by creating or retaining jobs.

Nevada Operations Office
The Nevada Test Site is located north of Las Vegas, NV. It has experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent community. The community reuse organization was established as a focal point to stabilize the local economy. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs.

NNSA Service Center
Los Alamos Site Office
The Los Alamos Site, located about 60 miles north of Albuquerque, NM, has experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent community. The community reuse organization was established as a focal point to stabilize the local economy. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs.

Pinellas Plant
The Pinellas Site is a former weapons facility located in Pinellas, FL, which is in the Tampa-St. Petersburg metropolitan area. The facility has been completely closed and the property sold to the local community reuse organization. The Legacy Management program provides pension and benefits payments for the former contractor work force as well as assisted the community reuse organization as a focal point to stabilize the local economy. A portion of the funding in FY 2004 and FY 2005 is for assistance for the community reuse organization.

Sandia Site Office
The Sandia Site is located in Albuquerque, NM. It has experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent community. The community reuse organization was established as a focal point to stabilize the local economy. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs.

Oak Ridge Operations Office
The Oak Ridge facility, located about 20 miles west of Knoxville, TN, has experienced work force actions that reduced the work force. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs.

Ohio Field Office
Mound Plant
The Mound Plant is one of the facilities targeted by the Office of Environmental Management for closure in FY 2006. This closure will completely eliminate the Department's funding of the contractor work force with secondary impacts on the economy of the adjacent community. The community reuse organization was established as a focal point to stabilize the local economy. Assistance for separation benefits for the contractor work force affected by downsizing mitigated the impact of the separation. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs.

Richland Operations Office
The Hanford Site in Richland, WA, has experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent community. The community reuse organization was established as a focal point to stabilize the local economy. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs.

Rocky Flats Field Office
The Rocky Flats facility is located about ten miles north of Golden, CO. It is one of the facilities targeted by the Office of Environmental Management for closure in FY 2006. The community reuse organization was established as a focal point to stabilize the local economy. Assistance for separation benefits for the contractor work force affected by downsizing mitigate the impact of the separation. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs. Funding will be provided during FY 2005 for a Stakeholder Organization.

Savannah River Operations Office
Carlsbad Area Office
The Carlsbad Area Office, located in southeastern New Mexico, is the administrative office for the WIPP facility. It has experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent community. The community reuse organization was established as a focal point to stabilize the local economy. Assistance to the community reuse organization helped that group stabilize the economy by creating or retaining jobs.

Savannah River Operations Office
The Savannah River Site, located about ten miles south of Aiken, SC, has experienced work force actions that reduced the work force with secondary impacts on the economy of the adjacent community. The community reuse organization was established as a focal point to stabilize the local economy. Assistance to the community reuse organization helps that group stabilize the economy by creating or retaining jobs.

Washington Headquarters
Introduction
The Office of Legacy Management has been organized as a Headquarters office with personnel located in the Washington, DC area, Denver and Grand Junction, CO, Morgantown, WV, and Pittsburgh, PA.

Grand Junction Office
The Grand Junction Office is located in western Colorado. The oversight of the long term surveillance and maintenance program is the staff's primary function. The long-term surveillance and maintenance activities managed from this office include environmental monitoring, long-term treatment of contaminants, maintaining site security, preparation for the transfer of closure sites, and asset disposition.

Morgantown Office
The Morgantown Office is located in Morgantown, WV. The staff at that location focus on long-term surveillance and maintenance and records management activities to support the missions of the Office of Legacy Management.

Washington Headquarters
The Office of Legacy Management Washington headquarters staff have primary management responsibility for program direction and for some program activities. Program activities include establishing a National Stewardship Contractor to manage retiree pensions and benefits and administering the funding for the environmental justice program.

Legacy Management

Funding Profile by Subprogram

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Legacy Management Program					
Legacy Management……...….	11,615	33,694	-269	33,425	31,421
Worker and Community Transition..	10,666	0	-0	0	0
Program Direction……..……..	13,191	13,201	-106	13,095	13,655
Total, Legacy Management Program….	35,472	46,895	-375	46,520	45,076

Public Law Authorizations:

Public Law 95-91, "Department of Energy Organization Act (1977)
Public Law 103-62, Government Performance and Results Act of 1993
Public Law 106-377, Energy and Water Development Appropriations Act, 2001
Public Law 106-398, National Defense Authorization Act for Fiscal Year 2001
Public Law 107-66, Energy and Water Development Appropriations Act, 2002
Public Law 107-314, Bob Stump National Defense Authorization Act for Fiscal Year 2003
Public Law 108-136, National Defense Authorization Act for Fiscal Year 2004

Mission

The mission of the Office of Legacy Management is to support the Department's commitments to protect the nearby communities and ensure former contractor personnel receive the benefits to which they are entitled. The activities that are used to accomplish this mission include: (1) conduct long-term surveillance and maintenance (also referred to as long-term stewardship) at DOE facilities where remediation measures have been substantially completed; (2) oversee the management of pensions and benefits for former contractor employees; (3) perform storage, retrieval, and management of all records necessary for legacy management activities, (4) administer the Environmental Justice program, and, (5) dispose of assets no longer needed for the Department's missions.

Benefits

The Legacy Management program contains important elements to assist the Office of Environmental Management achieve the strategic goal of providing a resolution to the environmental legacy of the Cold War. As the Office of Environmental Management completes its cleanup activities, certain aspects of the Department's responsibilities remain. These activities include: long-term groundwater pump and treat operations, remedy surveillance and maintenance, records management, and long-term retirement pension and benefits for contractor personnel. A long-term commitment to manage the resources and activities beyond the completion of active remediation is required. The activities of the Legacy Management program ensure that these Departmental responsibilities are addressed and the Office of Environmental Management is able to concentrate its efforts on cleanup and risk reduction.

Legacy Management
Funding Schedule by Activity

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Legacy Management					
Long-Term Surveillance and Maintenance....	7,186	11,284	11,248	-36	-0.3%
Pension and Benefit Continuity……..…..….	3,862	7,986	19,603	+11,617	+145.5%
Environmental Justice……...…	567	565	570	+5	+0.9%
Congressionally Directed Activity.……..…..	0	13,590	0	-13,590	-100.0%
Total, Legacy Management……..…....	11,615	33,425	31,421	-2,004	-6.0%

Description

The mission of the Legacy Management subprogram is to conduct long-term surveillance and maintenance (also referred to as long-term stewardship) at DOE facilities where remediation measures have been substantially completed, oversee the management of pensions and benefits for former contractor employees, perform storage, retrieval, and management of all records necessary for legacy management activities, and administer the environmental justice program. These activities are performed for the purpose of supporting the Department's commitments contained in records of decision, contracts, and legal agreements.

Benefits

The Legacy Management subprogram contains the essential elements to assist the Office of Environmental Management achieve the strategic goal of providing a resolution to the environmental legacy of the Cold War and ensure that the Department fulfills its long-term commitments to protect the environment and to ensure continuity of benefits to former contractor workers. By funding the long-term activities in the Legacy Management program, the Office of Environmental Management is able to concentrate its resources on risk reduction and site closure.

Detailed Justification

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Long-Term Surveillance and Maintenance……..…	**7,186**	**11,284**	**11,248**

The funding requested for FY 2006 will allow the Office of Legacy Management (LM) to monitor and conduct long-term treatment of sites in accordance with legal, contractual, and regulatory agreements. Sites under this program are the Pinellas Plant, Maxey Flats, General Atomics, Geothermal Test Facility, and University of Missouri Research Reactor. Functions include soil, water, and air monitoring, long-term treatment of contaminants, maintenance of contaminant treatment structures, and maintaining security for the sites and other resources associated with the sites. If these activities are not performed, the Department will miss milestones contained in legal and regulatory agreements.

To accelerate site cleanup and the transfer of site management responsibilities, the Office of Environmental Management and LM are working jointly to prepare sites for transfer. the budget request includes funding to continue preparing for the transfer of Rocky Flats, Mound, Fernald, and the Nevada Off-Sites. Activities would include: reviewing the environmental remedies and preparing a surveillance and maintenance plan; negotiating any required post-closure agreements; taking custodianship of records and information systems; assessing and planning to manage the real property and the natural, cultural and historical resources; performing a site inspection; and, preparing contracts to perform the work that remains post-closure. Failure to perform these functions would delay the transfer of management responsibility for Rocky Flats, Fernald, Mound, and the Nevada Offsites with significant negative impacts upon EM's risk reduction and future transfers.

**Pension and Benefit Continuity……..…… **	**3,862**	**7,986**	**19,603**
▪ **Pinellas……..……..…..….. **	**3,862**	**6,498**	**7,603**

This project provides payments to former contractor employees pursuant to employee reduction-in-force requirements and administration of DOE liabilities associated with contractor employee retirement benefits. These payments will continue for approximately 50 years. The level of funding was estimated from recent cost trends. If funding were not provided, the Department would not be honoring its commitments to these employees.

▪ **Planned 2006 Closure Sites……..……....…… **	**0**	**1,488**	**12,000**

One of the hallmarks of this Administration's stewardship at the Department of Energy has been the accelerated risk-based environmental cleanup and closure of three major departmental nuclear weapons complex sites. To enable this major accomplishment, beginning in FY 2007, the Department will transfer post closure control of the Rocky Flats, Fernald, and Mound sites to the Office of Legacy Management (LM) from the Office of Environmental Management (EM). Final closure requires the LM program to establish and ensure the smooth operation of a system for the delivery of earned pension and health benefits for up to 30,000 former contractor employees. The measure of success for final closure at these sites includes the Department honoring its financial commitment to these tens of thousands of "Cold-War-Warriors."

(dollars in thousands)

FY 2004	FY 2005	FY 2006

- **Planned 2006 Closure Sites (continued)**

Successful transition of responsibility for contractor pension and benefits payments to LM is an absolute necessity to attain final closure. Failure to transition management of closure site pension and health benefit programs to LM in the absence of a site contractor would significantly dilute EM's focus on accelerated closure and risk reduction at its remaining cleanup sites.

To work with the closure site contractors to enhance the delivery system for pension and health benefits for closure sites, in the FY 2006 budget the Department is requesting $12 million. This funding is needed to assist in procuring the services of a National Stewardship Contractor (NSC) for the management and administration of the pension and benefits payments to the former closure site contractor employees once these sites are closed and transferred to Legacy Management. The NSC must be fully functional by October 1, 2006.

As part of this process, the Department will make a fundamental shift in the way benefits payments are made. Traditionally, the costs associated with pension and benefits payments have been carried as part of the site contractors' overhead. With a National Stewardship Contractor, pension and medical benefits payments will be direct funded via the appropriation process. These costs could quickly exceed $100 million a year in benefit payouts for up to 30,000 former closure site contractor employees.

The activities funded by this request are essential to the successful transition of Rocky Flats, Fernald and Mound to Legacy Management for the oversight of pensions and benefits. If the systems described above are not in place by October 1, 2006, the transfer of management responsibility for the contractor employees' pensions and health benefits would be delayed. This delay would have significant negative impacts upon EM's risk reduction efforts and the timing of future transfers.

Environmental Justice…….……..…….. 567 565 570

This Departmental program transferred from Environmental Management to Legacy Management during FY 2005. The funding allows the Department to manage a program to promote environmental justice as specified by Executive Order 12898, issued on February 11, 1994. This program provides assistance for a variety of activities that include: grants to communities to address environmental subjects using expertise from Historically Black Colleges and Universities (HBCU's); an intern program through the United Negro College Fund; a cooperative agreement with the National Conference of Black Mayors to provide assistance on environmental issues; and a Community Capacity Building Program to provide assistance to enable communities around DOE sites to address environmental issues.

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Congressionally Directed Activities……..	**0**	**13,590**	**0**

There were a total of three Congressionally Directed activities funded in FY 2005. The program does not request further funding in FY 2006 for these activities. The following activities were directed by Congress to be included in this program:

- **Stakeholder Organization……..……..……. 0 496 0**

This organization would serve as a focal point for interested parties following the closure of the Rocky Flats facility.

- **Records Management…… 0 7,936 0**

The Office of Legacy Management will oversee site selection and facility construction. The schedule for the structure will have it completed in time to receive records from the three scheduled closure sites (Rocky Flats, Fernald, and Mound), beginning in FY 2007.

- **Community Transition……..…… 0 5,158 0**

There were two sites in FY 2005 to receive funding to assist their respective community reuse organizations: the Pinellas Plant in Pinellas , FL, and the Mound Plant in Miamisburg, OH.

Total, Legacy Management……...……..... 11,615	**33,425**	**31,421**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Long-Term Surveillance and Maintenance	
No significant change……	-36
Pension and Benefit Continuity	
▪ Pinellas Contractor Medical Benefits Medical benefits for former contractor employees from the Pinellas facility have experienced cost increases higher than the inflation rate ……..	+1,105
▪ National Stewardship Contractor (NSC) During FY 2006, the NSC must be selected and made fully functional by the end of the fiscal year in order for it to manage the pension and medical benefits for Rocky Flats beginning in FY 2007……..……	+10,512
**Total, Pension and Benefit Continuity…….. **	**+11,617**
Environmental Justice	
No significant change……	+5
Congressionally Directed Activities	
▪ Stakeholder Organization No funding requested in FY 2006..……..……...	-496
▪ Records Management No funding requested in FY 2006……..……...……..	-7,936
▪ Community Transition No funding requested in FY 2006……...	-5,158
**Total, Congressionally Directed Activities……..…… **	**-13,590**
Total Funding Change, Legacy Management.....….....	**-2,004**

Worker and Community Transition
Funding Schedule by Activity

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Worker and Community Transition					
Worker Transition……..…..…..	5,577	0	0	0	0.0%
Community Transition…….…...	5,089	0	0	0	0.0%
Total, Worker and Community Transition……...…….....	10,666	0	0	0	0.0%

Public Law Authorizations:

Public Law 102-484, "National Defense Authorization Act for Fiscal Year 1993, Section 3161

Description

The mission of the Worker and Community Transition program is to mitigate the impacts on workers and their communities caused by changing Department of Energy missions, consistent with Section 3161 of the Defense Authorization Act of 1993. This has been accomplished by work force planning, separation assistance and community transition assistance.

Benefits

Worker and community transition activities are important tools for changing the Department of Energy's work force, especially in the work force reductions that will accompany the closure of Fernald, Mound, and Rocky Flats. By providing separation assistance, the program helps the Department in retaining employees needed to achieve cleanup and closure milestones. Assistance to the communities has contributed to maintaining the economic stability of affected communities.

Detailed Justification

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Worker Transition.....…….....	**5,577**	**0**	**0**

This activity was started to mitigate the impacts on the "Cold War Warriors," contractor employees at weapons facilities who faced significant reductions with the end of the Cold War. Through the start of the program in FY 1994 through FY 2004, approximately $650 million has been appropriated for this purpose. Using the funding for worker transition, the Department has mitigated the reduction of its contractor work force by about one-fourth without any labor disruptions. No funding is requested in FY 2006. This program is complete.

Community Transition……	**5,089**	**0**	**0**

The community transition activity was started to mitigate the economic impacts on nearby communities caused by work force reductions brought about by the end of the Cold War. The funding assisted these communities in diversifying their economies. With funding for community transition, the Department has provided assistance to affected communities that has created or retained in excess of 45,000 jobs. Because some enterprises this activity helped start will continue to add workers, the final impact of the activity will be higher. The Office of Legacy Management considers the role planned for the community transition funding has been achieved and no further funding has been requested for FY 2006.

Total, Worker and Community Transition...	**10,666**	**0**	**0**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Worker Transition	
Funding for the activity was completed in FY 2004…….....	**0**
Community Transition	
Funding for the activity was completed in FY 2004……...……..……	**0**
Total Funding Change, Worker and Community Transition.....	**0**

Program Direction

Funding Profile by Category

(dollars in thousands/whole FTEs)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Headquarters					
Salaries and Benefits…….……....	9,424	9,480	10,060	+580	+6.1%
Travel.....…….……....	652	637	640	+3	+0.5%
Support Services..….....	1,860	1,758	1,740	-18	-1.0%
Other Related Expenses…...….....	1,255	1,220	1,215	-5	-0.4%
Total, Headquarters.....….….....	13,191	13,095	13,655	+560	+4.3%
Full Time Equivalents..…….….....	74	81	81	0	0.0%

Mission

Program direction provides the Federal staffing resources and associated costs required to provide overall direction and execution of Office of Legacy Management functions. The staff of the Office of Legacy Management are all Headquarters employees, but primarily located in Forrestal/Germantown, Grand Junction, Colorado, Morgantown, West Virginia, and Pittsburgh, Pennsylvania.

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. The Office of Legacy Management performs critical functions which directly support the mission of the Department. These functions include but are not limited to long-term surveillance and maintenance, overseeing management of pensions and benefits for former contractor personnel, records management, managing information technology, ensuring sound legal advice and fiscal stewardship, developing and implementing uniform program policy and procedures, maintaining and supporting our work force, safeguarding our work spaces, and providing Congressional and public liaison.

Detailed Justification

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Salaries and Benefits.....….....	**9,424**	**9,480**	**10,060**

Personnel are responsible for conducting surveillance and maintenance activities for a variety of DOE sites, many situated in remote locations. Although Legacy Management is a headquarters function, there are personnel stationed in Grand Junction, CO, and Morgantown, WV, and Pittsburgh, PA. A major portion of the workload for the personnel in Grand Junction is involved with oversight of the surveillance and maintenance at sites where remediation is complete. The personnel at Morgantown/Pittsburgh also assist in the surveillance and maintenance functions and are preparing to be the focal point of records management and pension and benefit continuity for the closure sites.

Staff will work to ensure that the required monitoring actions are performed to protect the environment and the public's health and safety in the vicinity of about 70 sites where remediation has been completed. Further, in other program activities, they will: (1) ensure that pension and other post-retirement payments that honor the Department's commitments to former contractor personnel are made; (2) oversee actions to achieve approximately 1,000 prime contractor changes per year; (3) work to streamline the approval of work force restructuring plans and develop and implement policies to integrate contract reform mechanisms; (4) provide oversight of upcoming labor negotiations at four sites; and, (5) perform additional functions, such as maintaining records for FUSRAP considered sites, reviewing Departmental liability for CERCLA claims, and administering the environmental justice program within the Department.

During FY 2005 and FY 2006, the Asset Management Program staff will continue to assist in the transfer of unneeded materials at field sites throughout the complex, especially in the transfer of ozone depleting substances, and will represent the Department on the Market Impact Committee to retain critical and strategic materials needed for national security needs in the National Defense Stockpile.

Travel.....….....	**652**	**637**	**640**

Travel will enable staff to conduct necessary surveillance and maintenance functions, oversight, and related activities.

Support Services.....….....	**1,860**	**1,758**	**1,740**

Support services will assist in the surveillance and maintenance activities, the logistics of payments to former contractor personnel, and in the preparation of both routine and extraordinary analyses and reports as needed.

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Other Related Expenses.....….....	**1,255**	**1,220**	**1,215**

The amount in this category consists mainly of the working capital fund/infrastructure costs. Space rental, telephones, copiers and printing, computer support, general office supplies, and mailing costs are included in these expenses. The working capital fund costs are proportionate to the number of employees. Other expenses are for items not encompassed by the working capital fund, e.g., computer software.

Total, Program Direction.....….....	**13,191**	**13,095**	**13,655**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Salaries and Benefits Change reflects cost of living increases for salary expenses and filling some positions that will be vacant for part of FY 2005……..…….……...	+580
Travel No significant change…….....	+3
Support Services No significant change…….....	-18
Other Related Expenses No significant change…….....	-5
Total Funding Change, Program Direction.....….....	**+560**

Support Services by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Technical Support Services.....	0	0	0	0	0.0%
Management Support Services..….....	1,373	1,302	1,290	-12	-0.9%
ADP Support.....……....	385	355	350	-5	-1.4%
Administrative Support Services……....	102	101	100	-1	-1.0%
Total, Support Services.....……..	1,860	1,758	1,740	-18	-1.0%

Other Related Expenses

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Working Capital Fund.....….....	1,097	1,071	1,070	-1	-0.1%
Other.....….....	158	149	145	-4	-2.7%
Total, Other Related Expenses.....	1,255	1,220	1,215	-5	-0.4%

Other Defense Activities
Office of Nuclear Energy, Science and Technology

Overview

Appropriation Summary by Program

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Energy Supply					
University Reactor Infrastructure and Education Assistance	23,055	24,000	-190[a]	23,810	24,000
Research and Development					
Nuclear Energy Plant Optimization	2,863	2,500	-20[a]	2,480	0
Nuclear Energy Research Initiative	6,410	2,500	-19[a]	2,481	0
Nuclear Power 2010	19,360	50,000	-395[a]	49,605	56,000
Generation IV Nuclear Energy Systems Initiative	26,981	40,000	-317[a]	39,683	45,000
Nuclear Hydrogen Initiative	6,201	9,000	-71[a]	8,929	20,000
Advanced Fuel Cycle Initiative	65,750	68,000	-538[a]	67,462	70,000
Total, Research and Development	127,565	172,000	-1,360	170,640	191,000
Infrastructure					
Radiological Facilities Mgmt	63,431	69,110	-547[a]	68,563	64,800
Idaho Facilities Management	75,534	123,050	-730[a]	122,320	80,100
Idaho Sitewide Safeguards and Security	56,654	58,103	0	58,103	0
Total, Infrastructure	195,619	250,263	-1,277	248,986	144,900
Spent Nuclear Fuel Management	0	6,723[b]	-6,723[b]	0	0
Program Direction	60,256	60,285	+89[c]	60,374	30,006
Subtotal, Energy Supply	406,495	513,271	-9,461	503,810	389,906

[a] Distribution of the rescission from the Consolidated Appropriations Act, 2005.
[b] Amount includes $5.223M Energy Supply and $1.5M for Other Defense Activities that are being transferred to the Office of Environmental Management.
[c] Amount includes comparability adjustments of $209K for the rescission in the Consolidated Appropriations Act, 2005, $97K for one FTE transfer to the Office of the Chief Information Officer, and $395K for 2 FTEs from the National Nuclear Security Administration.

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Use of Prior-Year Balances	0	-4,217[a]	0	-4,217	0
Less Security Charge for Reimbursable Work	-3,003	0	0	0	0
Funding from Other Defense	-112,306	-114,347	0	-114,347	0
Funding from Naval Reactors	0	-10,000	0	-10,000	0
Total, Energy Supply	291,186	384,707	-9,461	375,246	389,906
Other Defense Activities					
Infrastructure					
Idaho Facilities Management	21,296	20,886	-167[b]	20,719	17,762
Idaho Sitewide Safeguards and Security	56,343	58,103	-441[b]	57,662	75,008
Total, Infrastructure	77,639	78,989	-608	78,381	92,770
Spent Nuclear Fuel Management	0	1,500[c]	-12[b]	1,488[c]	0
Program Direction	33,979	33,858	-339[d]	33,519	31,103
Subtotal, Other Defense Activities	111,618	114,347	-959	113,388	123,873
Less Security Charge for Reimbursable Work	0	-3,003	0	-3,003	-3,003
Total, Other Defense Activities	111,618	111,344	-959	110,385	120,870
Total, Energy Supply and Other Defense Activities (NE)	402,804	496,051	-10,420	485,631	510,776

[a] The Office of Nuclear Energy, Science and Technology's portion of the use of prior year balances reduction from the Consolidated Appropriations Act, 2005.
[b] Distribution of the rescission from the Consolidated Appropriations Act, 2005.
[c] This amount, as well as $5.223M in Energy Supply is being transferred to the Office of Environmental Management.
[d] Amount includes comparability adjustments of $271K for the rescission in the Consolidated Appropriation Act, 2005, and $68K for A-76 financial services

Appropriation Summary by Program

(Excludes Transfers to Other Defense Activities)

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Energy Supply					
University Reactor Infrastructure and Education Assistance	23,055	24,000	-190[a]	23,810	24,000
Research and Development					
Nuclear Energy Plant Optimization	2,863	2,500	-20[a]	2,480	0
Nuclear Energy Research Initiative	6,410	2,500	-19[a]	2,481	0
Nuclear Power 2010	19,360	50,000	-395[a]	49,605	56,000
Generation IV Nuclear Energy Systems Initiative	26,981	40,000	-317[a]	39,683	45,000
Nuclear Hydrogen Initiative	6,201	9,000	-71[a]	8,929	20,000
Advanced Fuel Cycle Initiative	65,750	68,000	-538[a]	67,462	70,000
Total, Research and Development	127,565	172,000	-1,360	170,640	191,000
Infrastructure					
Radiological Facilities Mgmt	63,431	69,110	-547[a]	68,563	64,800
Idaho Facilities Management	54,119	92,164	-730[a]	91,434	80,100
Total, Infrastructure	117,550	161,274	-1,277	159,997	144,900
Spent Nuclear Fuel Management	0	5,223	-6,723[b]	-1,500	0
Program Direction	26,019	26,427	+89[c]	26,516	30,006
Subtotal, Energy Supply	294,189	388,924	-9,461	379,463	389,906
Less Security Charge for Reimbursable Work	-3,003	0	0	0	0
Use of Prior-Year Balances	0	-4,217[d]	0	-4,217	0

[a] Distribution of the rescission from the Consolidated Appropriations Act, 2005.

[b] Amount includes $5.223M Energy Supply and $1.5M for Other Defense Activities that are being transferred to the Office of Environmental Management.

[c] Amount includes comparability adjustments of $209K for the rescission in the Consolidated Appropriations Act, 2005, $97K for one FTE transfer to the Office of the Chief Information Officer, and $395K for 2 FTEs from the National Nuclear Security Administration.

[d] The Office of Nuclear Energy, Science and Technology's portion of the use of prior year balances reduction from the Consolidated Appropriations Act, 2005.

(dollars in thousands)

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Infrastructure					
Idaho Facilities Management	21,296	20,886	-167	20,719	17,762
Idaho Sitewide Safeguards and Security	56,343	58,103	-441	57,662	75,008
Total, Infrastructure	77,639	78,989	-608	78,381	92,770
Spent Nuclear Fuel Management	0	1,500[a]	-12	1,488[a]	0
Program Direction	33,979	33,858	-339[b]	33,519	31,103
Subtotal, Other Defense Activities	111,618	114,347	-959	113,388	123,873
Less Security Charge for Reimbursable Work	0	-3,003	0	-3,003	-3,003
Total, Other Defense Activities	111,618	111,344	-959	110,385	120,870
Total, Energy Supply and Other Defense Activities (NE)	402,804	496,051	-10,420	485,631	510,776

Preface

The Office of Nuclear Energy, Science and Technology (NE) leads the Government's efforts to develop new nuclear energy generation technologies to meet energy and climate goals, to develop advanced, proliferation-resistant nuclear fuel technologies that maximize energy from nuclear fuel, and to maintain and enhance the national nuclear technology infrastructure. NE serves the present and future energy needs of the Nation by managing the safe operation and maintenance of the DOE critical nuclear infrastructure that provides nuclear technology goods and services.

Within the Energy Supply appropriation, NE has ten programs: University Reactor Infrastructure and Education Assistance, Nuclear Energy Plant Optimization, Nuclear Energy Research Initiative, Nuclear Power 2010, Generation IV Nuclear Energy Systems Initiative, Nuclear Hydrogen Initiative, Advanced Fuel Cycle Initiative, Radiological Facilities Management, Idaho Facilities Management, and Program Direction. NE also has two programs that are partially funded within the Other Defense Activities appropriation—Idaho Facilities Management and Program Direction—and one program completely funded within the Other Defense Activities appropriation—Idaho Sitewide Safeguards and Security.

[a] This amount, as well as $5.223M in Energy Supply is being transferred to Environmental Management.
[b] Amount includes comparability adjustments of $271K for the rescission in the Consolidated Appropriations Act, 2005, and $68K for A-76 financial services.

This Overview will describe Strategic Context, Mission, Benefits, Strategic Goals and Funding by General Goal. These items together put the appropriation in perspective. The Annual Performance Results and Targets, Means and Strategies, and Validation and Verification sections address how the goals will be achieved and how performance will be measured. Finally, this Overview will also address R&D Investment Criteria, Program Assessment Rating Tool (PART), and Significant Program Shifts.

Strategic Context

Following publication of the "National Energy Policy", the Department developed a Strategic Plan that defines its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. Each appropriation has developed quantifiable goals to support the general goals. Thus, the "goal cascade" is the following:

Department Mission → Strategic Goal (25 yrs) → General Goal (10-15 yrs) → Program Goal (GPRA Unit) (10-15 yrs)

To provide a concrete link between budget, performance, and reporting, the Department developed a "GPRA[a] unit" concept. Within DOE, a GPRA unit defines a major activity or group of activities that support the core mission and aligns resources with specific goals. Each GPRA unit has completed or will complete a Program Assessment Rating Tool (PART). A unique program goal was developed for each GPRA unit. A numbering scheme has been established for tracking performance and reporting.[b]

The goal cascade accomplishes two things. First, it ties major activities for each program to successive goals and, ultimately, to DOE's mission. This helps ensure the Department focuses its resources on fulfilling its mission. Second, the cascade allows DOE to track progress against quantifiable goals and to tie resources to each goal at any level in the cascade. Thus, the cascade facilitates the integration of budget and performance information in support of the GPRA and the President's Management Agenda (PMA).

Another important component of our strategic planning – and the President's Management Agenda – is use of the Administration's R&D investment criteria to plan and assess programs and projects. The criteria were developed in 2001 and further refined with input from agencies, Congressional staff, the National Academy of Sciences, and numerous private sector and nonprofit stakeholders.

The chief elements of the R&D investment criteria are quality, relevance, and performance. Programs must demonstrate fulfillment of these elements. For example, to demonstrate relevance, programs are expected to have complete plans with clear goals and priorities. To demonstrate quality, programs are expected to commission periodic independent expert reviews. There are several other requirements, many of which R&D programs have and continue to undertake.

An additional set of criteria were established for R&D programs developing technologies that address industry issues. Some key elements of the criteria include: the ability of the programs to articulate the appropriateness and need for Federal assistance; relevance to the industry and the marketplace; identification of a transition point to industry commercialization (or of an off-ramp if progress does not

[a] Government Performance and Results Act of 1993

[b] The numbering scheme uses the following numbering convention: First two digits identify the General Goal (01 through 07); second two digits identify the GPRA Unit; last four digits are reserved for future use.

meet expectations), and; the potential public benefits, compared to alternative investments, that may accrue if the technology is successfully deployed.

The OMB-OSTP guidance memo to agencies dated June 5, 2003, describes the R&D investment criteria fully and identifies steps agencies should take to fulfill them. (The memo is available online at www.ostp.gov/html/fy05developingpriority.pdf.) Where appropriate throughout these justification materials, especially in Significant Program Shifts and Explanation of Funding Changes subheadings, specific R&D investment criteria and requirements are cited to explain the Department's allocation of resources.

Mission

The mission of the Office of Nuclear Energy, Science and Technology is to lead the DOE investment in the development and exploration of advanced nuclear science and technology. NE leads the Government's efforts to develop new nuclear energy generation technologies; to develop advanced, proliferation-resistant nuclear fuel technologies that maximize energy from nuclear fuel; and to maintain and enhance the national nuclear technology infrastructure. NE aims to serve the present and future energy needs of the Nation by managing the safe operation and maintenance of the DOE nuclear infrastructure that provides nuclear technology goods and services. NE manages research laboratories and radiological facilities and is the Lead Program Secretarial Officer for the Idaho National Laboratory.

Benefits

The benefits of nuclear power as an emissions free, reliable, and affordable source of energy are an essential element in the Nation's energy and environment future. Nuclear power has become the second most abundant source of electric energy in the U.S., and existing plants are among the most economic sources of electricity on the grid today. NE focuses on the development of advanced nuclear technologies to assure diversity in the U.S. energy supply. This budget request responds to the Energy Security goal to develop new generation capacity to fortify U.S. energy independence and security while making improvements in environmental quality. It builds on important work started over the last three years to deploy new nuclear plants in the U.S. by early in the next decade, to develop advanced, next generation nuclear technology, and to strengthen our Nation's nuclear education infrastructure.

The NE budget request supports development of new nuclear generation technologies that provide significant improvements in sustainability, economics, safety and reliability, and non-proliferation and resistance to attack. Specifically, the Nuclear Hydrogen Initiative will develop advanced technologies that can be used in tandem with next generation nuclear energy plants to generate economic, commercial quantities of hydrogen to support a sustainable, clean energy future for the U.S. The Generation IV Nuclear Energy Systems Initiative establishes a basis for expansive cooperation with our international partners to develop next generation reactor and fuel cycle systems that represent a significant leap in economic performance, safety, and proliferation resistance.

Through NE programs and initiatives, NE seeks to develop advanced, proliferation-resistant nuclear fuel technologies that maximize energy output, minimize wastes, and operate in a safe and environmentally sound manner. The Advanced Fuel Cycle Initiative develops technologies that would enable the reduction of spent nuclear fuel waste requiring geologic disposal and the recovery of spent nuclear fuel's valuable energy. Over the last five years, the U.S. has joined several countries in an international effort

to pursue advanced technologies that could treat and transmute spent nuclear fuel from nuclear power plants, while reducing overall proliferation risk.

NE plans to maintain and enhance the national nuclear infrastructure currently in place to help meet the Nation's energy, environmental, health care, and national security needs. This existing infrastructure including personnel, equipment, and facilities requires enhancements to meet the systems, fuels, and material testing requirements for advanced nuclear research such as the Generation IV Nuclear Energy Systems Initiative. Key activities include assuring that all NE facilities meet essential safety and environmental requirements and are maintained at user-ready levels. One of the essential facilities for ongoing and planned national security and energy research programs at the Idaho National Laboratory is the Advanced Test Reactor (ATR).

Strategic, General, and Program Goals

The Department's Strategic Plan identifies four strategic goals (one each for defense, energy, science, and environmental aspects of the mission) plus seven general goals that tie to the strategic goals. The Office of Nuclear Energy, Science and Technology supports the following goals:

Energy Strategic Goal: To protect our national and economic security by promoting a diverse supply of reliable, affordable, and environmentally sound energy.

General Goal 4, Energy Security: Improve energy security by developing technologies that foster a diverse supply of reliable, affordable and environmentally sound energy by providing for reliable delivery of energy, guarding against energy emergencies, exploring advanced technologies that make a fundamental improvement in our mix of energy options, and improving energy efficiency.

The programs funded by the Office of Nuclear Energy, Science and Technology have the following three Programs Goals which contribute to General Goal 4 in the "goal cascade":

Program Goal 04.14.00.00: Develop new nuclear generation technologies that foster the diversity of the domestic energy supply through public-private partnerships that are aimed in the near-term (2014) at the deployment of advanced, proliferation-resistant light water reactor and fuel cycle technologies and in the longer-term (2025) at the development and deployment of next-generation advanced reactors and fuel cycles.

Program Goal 04.17.00.00: Maintain and enhance the national nuclear infrastructure to meet the Nation's energy, environmental, medical research, space exploration and national security needs.

Program Goal 04.63.00.00: Enable, by 2015, the Nation's nuclear engineering universities to support a stable national undergraduate enrollment of approximately 1,500 to meet the Nation's need for trained nuclear scientists and engineers.

Contribution to General Goal 4

The Nuclear Power 2010 program is focused on resolving the technical, institutional, and regulatory barriers to the deployment of new nuclear power plants by 2010, consistent with the recommendations of the Nuclear Energy Research Advisory Committee (NERAC) report, "A Roadmap to Deploy New

Nuclear Power Plants in the United States by 2010." In order to support the "Nation Energy Policy" and the President's goal of reducing greenhouse gas intensity by 18 percent by 2012, the Nuclear Power 2010 program will help enable an industry decision to deploy at least one new advanced nuclear power plant in the U.S. early in the next decade.

For the longer-term future, the Department believes that new, next-generation technologies should be considered to enhance the prospects for a significant expansion in the use of nuclear energy in the United States. Engaging this area requires the kind of long-term, high-risk, high-pay-off research that only Government-sponsored research can address. As a prime example, the Department believes that the future energy picture of the United States can and should include a large role for hydrogen as a fuel for automobiles and other elements of the vast U.S. transportation infrastructure. The use of hydrogen would make it possible for this Nation to realize a primary objective of the "National Energy Policy"—to enhance the energy independence and security of the United States while making significant improvements in environmental quality. Hydrogen could someday be used to power our entire transportation system, reducing our reliance on imported oil, and dramatically reducing the harmful emissions associated with the combustion of fossil fuels.

The Department is working with industry and overseas governments to establish what may prove to be an important answer: nuclear energy-produced hydrogen. Applying advanced thermochemical processes, it may be possible to develop a new generation of nuclear energy plants to produce very large amounts of hydrogen without emitting carbon dioxide or other gases—and do so at a cost that is very competitive with imported fossil fuels. The Nuclear Hydrogen Initiative will develop new technologies to generate hydrogen on a commercial scale in an economic and environmentally benign manner. The Department's Offices of Nuclear Energy, Science and Technology; Fossil Energy; and Energy Efficiency and Renewable Energy are working in coordination to provide the technological underpinnings of the President's National Hydrogen Fuel Initiative. In the case of nuclear energy, the Department will conduct research and development into advanced thermochemical technologies which may, when used in tandem with next-generation nuclear energy systems, enable the United States to generate hydrogen at a scale and cost that would support a future, hydrogen-based economy.

Developing the next-generation nuclear systems to make hydrogen possible is one aspect of the Generation IV Nuclear Energy Systems. Through this effort, the United States will lead multi-national research and development projects to usher forth next-generation nuclear reactors and fuel cycles. This international approach allows for the development of technologies that are widely acceptable; enables the Department to access the best expertise in the world to develop complex new technologies; and allows us to leverage our scarce nuclear R&D resources. After two years of detailed analysis by over 100 of the world's top scientists and engineers, the Nuclear Energy Research Advisory Committee (NERAC), working with the Generation IV International Forum (GIF), has identified six systems in pursuit of which the international community will collaborate and conduct joint research.

The FY 2006 Budget expands research and development that could help achieve the desired goals of sustainability, economics, and proliferation resistance. Further investigation of technical and economic challenges and risks, including waste products, will help inform a decision on whether to proceed with a demonstration of the Next Generation Nuclear Plant, which would use very high temperature reactor technologies to economically produce both electricity and hydrogen gas.

As the United States considers the expansion of nuclear energy, it is clear that the Nation must optimize its approach to managing spent nuclear fuel. While the planned geologic repository at Yucca Mountain would be sufficient for all commercial spent fuel generated in the United States through 2015, the current "once-through" approach to spent fuel will require the United States to build additional repository space to assure the continued, safe management of nuclear waste from currently operating plants and a new generation of nuclear plants. Further, long-term issues associated with the toxicity of nuclear waste and the eventual proliferation risks posed by plutonium in spent fuel remain.

The Advanced Fuel Cycle Initiative (AFCI) is focused on developing technologies which can reduce the volume and long-term toxicity of high level waste from spent nuclear fuel, reduce the long-term proliferation threat posed by civilian inventories of plutonium in spent fuel, and provide for proliferation-resistant technologies to recover the energy content in spent nuclear fuel. Currently, the spent nuclear fuel at nuclear plant sites contains the energy equivalent of 6 billion barrels of oil or about two full years of U.S. oil imports. The AFCI will make it possible to establish an improved, optimized nuclear fuel cycle that will turn this waste into a huge source of energy and do so in a manner that improves the long-term proliferation-resistance of the civilian nuclear fuel cycle.

In addition to nuclear research and development programs, the Department has the responsibility to maintain and enhance the Nation's nuclear infrastructure currently in place. This includes one of the world's most comprehensive research infrastructures—most of which was constructed in the 1950s and 1960s. The Department is also responsible for providing critical support to our Nation's university nuclear engineering programs and associated research reactor infrastructure. It is imperative that we maintain and enhance our national nuclear capabilities by managing these resources and capabilities to ensure that they continue to be operational and available for the fulfillment of important national research and security missions. Guided by invaluable input from NERAC, we seek efficient ways to preserve our national nuclear assets and make appropriate investments to enhance them before passing them on to future generations.

The Radiological Facilities Management program maintains irreplaceable DOE nuclear technology facilities in a safe, secure, environmentally compliant and cost-effective manner to support national priorities. It maintains the Department's vital resources and capabilities of NE-managed facilities at Oak Ridge National Laboratory (ORNL), Los Alamos National Laboratory (LANL), Sandia National Laboratory (SNL), and Brookhaven National Laboratory (BNL). Central to this infrastructure is the Nation's nuclear technology laboratory, the multi-program Idaho National Laboratory (INL). The Department is proceeding with plans to establish the INL as the world's finest nuclear technology laboratory within 10 years. The Radiological Facilities Management program also supports the oversight and planning required to assure that the Department's nuclear fuel cycle assets—principally the Paducah Gaseous Diffusion Plant—can respond, as required, to future national requirements.

The Idaho Facilities Management program maintains the Department's facilities at Idaho in a safe, secure and environmentally compliant condition for a range of vital Federal missions. The Idaho Sitewide Safeguards and Security program supports activities that are required to protect the Department's Idaho complex assets from theft, diversion, sabotage, espionage, unauthorized access, compromise, and other hostile acts which may cause unacceptable adverse impacts on national security, program continuity, the health and safety of employees, the public, or the environment.

The University Reactor Infrastructure and Education Assistance program supports the operation and upgrade of university research and training reactors, provides graduate fellowships and undergraduate scholarships to outstanding students, uses innovative programs to bring nuclear technology education to small, minority-serving institutions, and provides nuclear engineering research grants to university faculty. The program helps to maintain domestic capabilities to conduct research and the critical infrastructure necessary to attract, educate, and train the next generation of scientists and engineers with expertise in nuclear energy technologies. The Department also partners with industry in a 50/50 cost share program to assist the universities in maintaining their research capabilities. DOE also provides the supply of fresh fuel to university research reactors and supports reactor equipment upgrades at universities.

The Program Direction account funds expenses associated with the technical direction and administrative support of NE programs. NE is responsible for leading the Federal government's investment in nuclear science and technology by investing in innovative science and preserving the national research and development infrastructure. This program supports NE's Headquarters, Idaho, and Oak Ridge offices, and the U.S. mission to the Organization for Economic Cooperation and Development. NE plans to perform its mission, goals, and activities with excellence in accordance with the President's Management Agenda by: creating an organization that will more effectively implement the Secretary's priorities; updating and expanding the independently created Office of Nuclear Energy, Science and Technology Workforce Plan; and continuing to recruit a well-qualified, diverse workforce.

Funding by General and Program Goal

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
General Goal 4, Energy Security			
Program Goal 04.14.00.00, Develop new nuclear generation technologies	118,292	165,679	191,000
Program Goal 04.17.00.00, Maintain and enhance the national nuclear infrastructure	195,189	238,378	237,670
Program Goal 04.63.00.00, Enhance the Nation's nuclear education infrastructure capability	23,055	23,810	24,000
All Other	69,271	64,984	61,109
Total, General Goal 4, Energy Security	405,807	492,851	513,779

Major FY 2004 Achievements

In FY 2004, the Department issued an innovative Request for Proposals that was designed to make the Idaho National Laboratory the premier nuclear energy research laboratory in the world in ten years. The INL will play a lead role in developing Generation IV nuclear energy systems, advanced nuclear fuel cycle technologies, and space nuclear power applications. The new contract was awarded in November 2004 to Batelle Energy Alliance, LLC. Beginning in the second quarter of FY 2005, the Idaho National Engineering and Environmental Laboratory (INEEL) will be merged with Argonne National Laboratory-West (ANL-W) to establish the basis of the Idaho National Laboratory (INL). The Secretary of Energy has designated INL as the center for the Department's strategic nuclear energy research and development efforts. The INL will play a lead role in Generation IV nuclear energy systems development, advanced fuel cycle development, testing of naval reactor fuels and reactor core components, and space nuclear power applications. While the laboratory has transitioned its research and development focus to nuclear energy programs, it is also maintaining its multi-program national laboratory status to serve a variety of current and planned Department and national research and development missions.

In FY 2004, the Department issued a solicitation inviting proposals from teams led by power generation companies to initiate New Nuclear Plant Licensing Demonstration Projects to obtain an NRC license to construct and operate a new nuclear power plant. Industry response to the November 20, 2003 solicitation has been encouraging with Department receiving proposals from three consortia representing nine U.S. power generation companies and four advanced reactor technology suppliers. The nine power generation companies responding to the solicitation operate 63 of the 103 U.S. commercial nuclear power plants. Although no company has yet announced a decision to build a plant, these companies are evaluating the construction of new nuclear plants.

Program Assessment Rating Tool (PART)

The Department implemented a tool to evaluate selected programs. PART was developed by the Office of Management and Budget (OMB) to provide a standardized way to assess the effectiveness of the Federal Government's portfolio of programs. The structured framework of the PART provides a means through which programs can assess their activities differently than through traditional reviews.

The current focus is to establish outcome- and output-oriented goals, the successful completion of which will lead to benefits to the public, such as increased national security and energy security, and reduced atmospheric emissions. DOE has incorporated feedback from OMB into the FY 2006 Budget Request, and the Department will take the necessary steps to continue to improve performance.

The Infrastructure program prepared a PART focused on the Idaho Facilities Management program where a majority of the funding requirements will occur. NE has incorporated feedback from OMB during the FY 2006 assessment as well as the FY 2004-FY 2005 assessments for Nuclear Energy R&D into the FY 2006 Budget Request and has taken or will take the necessary steps to continue to improve performance.

The results of the FY 2005 review for the Research and Development programs and the FY 2006 review for the Infrastructure program are reflected in the FY 2006 Budget Request as follows:

Nuclear Power 2010 (NP 2010) received an overall score of 69 (adequate), Generation IV Nuclear Energy Systems Initiative received an overall score of 79 (moderately effective), Advanced Fuel Cycle Initiative (AFCI) received an overall score of 76 (moderately effective), and Infrastructure received an overall score of 49 (results not demonstrated). All four were assessed perfect scores for clarity of program purpose and soundness of program design. In the planning area, OMB found a need for stronger links between budget and performance data for all four. To address these findings, stronger links between program goals and funding requests are shown in this budget submission. In the program management area, NP 2010 needs to measure and achieve cost effectiveness in program execution. In the program results area, NP 2010 needs to establish on an annual basis an independent assessment of the overall program. Generation IV lacks periodic external review. AFCI needs to better demonstrate the cost effectiveness of the program. These findings are also addressed in this budget submission. Idaho Facilities Management received a 0 score in the program results area. This is a new program and accomplishments have yet to be demonstrated. The assessment did find that the program is effectively targeted through the formal Idaho National Laboratory Ten Year Site Plan that identifies the mission-essential infrastructure and facilities, planned annual work scope, and performance measures for the laboratory.

NERAC's Subcommittee on Evaluations, formed in FY 2004, conducted independent program evaluations of NE's Generation IV Nuclear Energy Systems Initiative, Nuclear Power 2010 program, and the Advanced Fuel Cycle Initiative. The Subcommittee submitted its findings to the full NERAC in FY 2005. These findings will be incorporated into future NE budget requests.

Significant Program Shifts

- Nuclear Hydrogen Initiative. The Administration strongly supports nuclear energy as an important part of its energy portfolio. The Nuclear Hydrogen Initiative (NHI) activities are required to support the milestones identified in the "DOE Hydrogen Posture Plan" and the "Nuclear Hydrogen R&D Plan". These plans are revised periodically and provide clear performance measures upon which to base annual budget requests. Technology development work to date which has been conducted in accordance with the "Nuclear Hydrogen R&D Plan" has proved successful and justifies continued work. For example, in FY 2004, experiments were successfully completed on individual high-temperature electrolysis cells for hydrogen production. Since the results show that the hydrogen output of the cells closely matched the theoretical calculations, in FY 2005 the program is evaluating the performance of stacks of cells to achieve higher hydrogen production rates. Based on progress to date, in FY 2006 the program will proceed with the plan to test cell stacks for long-duration and transient operation, and an integrated 50kW system will be constructed for operation in FY 2007. As a result of these successes and other technical progress, the FY 2006 budget request includes an increase of $11,071,000 (+124%) to support continued development of nuclear hydrogen technologies that can be used in tandem with next generation nuclear energy systems that span a range of operating temperatures.

- Idaho Facilities Management. The overall funding for the Idaho Facilities Management program decreases from FY 2005 to FY 2006 because of a $43,453,000 one time cost associated with restructuring the Idaho National Laboratory complex and supporting site infrastructure services. This decrease is offset by an increase of $19,718,000 for maintenance and recapitalization projects to support the goal of achieving and maintaining an expenditure rate of 2-4 percent of Replacement Plant Value, a level recommended by the National Academy of Sciences, for the facilities at INL.

One of the essential facilities for ongoing and planned national security and energy research programs at the Idaho National Laboratory is the Advanced Test Reactor (ATR). Replacing the ATR with a new test reactor with similar capabilities would exceed two billion dollars and likely take at least ten years to build. An independent review group of reactor experts studied the ATR and provided their perspectives on the life extension of the reactor. This review prompted several projects, most notably an exhaustive safety basis reconstitution to assure that all safety related systems meet modern standards. This project is in progress and results to date are favorable. The recommendations of this review and other analyses will be incorporated into the INL Ten Year Site Plan (TYSP), which is the foundation for INL facilities and infrastructure strategic planning and the cornerstone of the Program's initiative to restore the INL and the other essential facilities on the site. Specifically, the TYSP includes a prioritized list of recapitalization projects that is based upon a formal prioritization methodology that preferentially targets deferred maintenance reduction, particularly for mission-essential facilities and infrastructure and provides the basis for the budget request.

- Idaho Sitewide Safeguards and Security. As a result of merging the Idaho National Engineering and Environmental Laboratory (INEEL) and the Argonne National Laboratory-West site into the Idaho National Laboratory (INL), the two existing safeguards and security programs at the Idaho site will be merged into a single program. This integration will continue in FY 2005 with additional changes anticipated to increase efficiency and contain costs for safeguards and security for the site. The Department issued a revised Design Basis Threat (DBT) in October 2004. These requirements will be implemented using a risk-informed approach to physical upgrades and by seeking efficiencies associated with combining the two contracts. The Department believes that early investment in improved positions for defending forces, more capable detection systems, and technological deterrent devices at target locations will result in cost avoidance over the lifetime of enduring facilities by reducing the number of additional protective force members needed to counter the revised threat. The FY 2006 request reflects increased funding of $17,346,000 to permit these investments.

Office of Nuclear Energy, Science and Technology
Funding by Site by Program

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Chicago Operations Office					
Chicago Operations Office					
Idaho Facilities Management	500	500	500	+0	+0.0%
Argonne National Laboratory					
University Reactor Infrastructure and Education Assistance	110	110	110	+0	+0.0%
Generation IV Nuclear Energy Systems Initiative	2,335	2,423	2,500	+77	+3.2%
Nuclear Power 2010	90	16	0	-16	-100.0%
Nuclear Hydrogen Initiative	710	640	1,000	+360	+56.3%
Advanced Fuel Cycle Initiative	8,200	6,913	7,000	+87	+1.3%
Total, Argonne National Laboratory	11,445	10,102	10,610	+508	+5.0%
Brookhaven National Laboratory					
Generation IV Nuclear Energy Systems Initiative	250	320	320	+0	+0.0%
Nuclear Power 2010	0	60	0	-60	-100.0%
Advanced Fuel Cycle Initiative	700	556	550	-6	-1.1%
Radiological Facilities Management.	2,373	2,673	2,650	-23	-0.9%
Total, Brookhaven National Laboratory	3,323	3,609	3,520	-89	-2.5%
Total, Chicago Operations Office	15,268	14,211	14,630	+419	+2.9%
Idaho Operations Office					
Idaho Operations Office					
University Reactor Infrastructure and Education Assistance	17,571	20,203	20,393	+190	+0.9%
Generation IV Nuclear Energy Systems Initiative	4,542	9,531	14,643	+5,112	+53.6%
Nuclear Energy Research Initiative	2,726	2,274	0	-2,274	-100.0%
Nuclear Energy Plant Optimization	880	200	0	-200	-100.0%
Nuclear Hydrogen Initiative	1,007	650	4,750	+4,100	+630.8%
Nuclear Power 2010	18,936	47,727	54,000	+6,273	+13.1%

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Advanced Fuel Cycle Initiative	5,677	6,376	8,488	+2,112	+33.1%
Program Direction	33,375	32,235	31,103	-1,132	-3.5%
Total, Idaho Operations Office	84,714	119,196	133,377	+14,181	+11.9%
Idaho National Laboratory					
University Reactor Infrastructure and Education Assistance	4,950	3,132	3,132	+0	+0.0%
Generation IV Nuclear Energy Systems Initiative	11,137	14,084	15,250	+1,166	+8.3%
Nuclear Hydrogen Initiative	1,303	2,320	7,500	+5,180	+223.3%
Nuclear Energy Plant Optimization	650	1,710	0	-1,710	-100.0%
Nuclear Energy Research Initiative	503	0	0	+0	+0.0%
Nuclear Power 2010	20	138	0	-138	-100.0%
Advanced Fuel Cycle Initiative	27,712	25,961	32,000	+6,039	+23.3%
Radiological Facilities Management	19,244	14,732	12,200	-2,532	-17.2%
Idaho Facilities Management	74,915	111,653	97,362	-14,291	-12.8%
Idaho Sitewide Safeguards and Security	56,343	57,662	75,008	+17,346	+30.1%
Total, Idaho National Laboratory	196,777	231,392	242,452	+11,060	+4.8%
University of Nevada, Las Vegas					
Nuclear Hydrogen Initiative	1,900	3,800	2,000	-1,800	-47.4%
Advanced Fuel Cycle Initiative	3,500	6,944	4,000	-2,944	-42.4%
Total, University of Nevada, Las Vegas	5,400	10,744	6,000	-4,744	-44.2%
Total, Idaho Operations Office	286,891	361,332	381,829	+20,497	+5.7%
NNSA Service Center					
NNSA Service Center					
Nuclear Power 2010	70	0	0	+0	+0.0%
Lawrence Livermore National Laboratory					
Generation IV Nuclear Energy Systems Initiative	316	410	500	+90	+22.0%
Advanced Fuel Cycle Initiative	150	175	150	-25	-14.3%
Total, Lawrence Livermore National Laboratory	466	585	650	+65	+11.1%

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Los Alamos National Laboratory					
Generation IV Nuclear Energy Systems Initiative	367	229	250	+21	+9.2%
Nuclear Energy Research Initiative	261	0	0	+0	+0.0%
Advanced Fuel Cycle Initiative	12,105	13,300	10,000	-3,300	-24.8%
Radiological Facilities Management	15,212	16,960	16,922	-38	-0.2%
Total, Los Alamos National Laboratory	27,945	30,489	27,172	-3,317	-10.9%
Sandia National Laboratories					
Generation IV Nuclear Energy Systems Initiative	1,270	445	600	+155	+34.8%
Nuclear Hydrogen Initiative	570	210	2,500	+2,290	+1,090.5%
Nuclear Plant Optimization	200	170	0	-170	-100.0%
Nuclear Energy Research Initiative	799	0	0	+0	+0.0%
Nuclear Power 2010	125	0	0	+0	+0.0%
Advanced Fuel Cycle Initiative	1,800	1,700	1,800	+100	+5.9%
Radiological Facilities Management	1,750	1,900	2,000	+100	+5.3%
Total, Sandia National Laboratories…	6,514	4,425	6,900	+2,475	+55.9%
Total, NNSA Service Center	34,995	35,499	34,722	-777	-2.2%
Savannah River Site Office					
University Reactor Infrastructure and Education Assistance	300	300	300	+0	+0.0%
Nuclear Energy Research Initiative	331	0	0	+0	+0.0%
Nuclear Power 2010	0	50	0	-50	-100%
Nuclear Hydrogen Initiative	180	300	750	+450	+150.0%
Advanced Fuel Cycle Initiative	800	583	700	+117	+20.1%
Total, Savannah River Site Office	1,611	1,233	1,750	+517	+41.9%
Oak Ridge Operations Office					
Oak Ridge Operations Office					
Radiological Facilities Management	0	496	500	+4	+0.8%
Program Direction	1,896	1,957	2,032	+75	+3.8%
Total, Oak Ridge Operations Office	1,896	2,453	2,532	+79	+3.2%

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Oak Ridge National Laboratory					
University Reactor Infrastructure and Education Assistance	38	25	25	+0	+0.0%
Nuclear Energy Plant Optimization	150	150	0	-150	-100.0%
Generation IV Nuclear Energy Systems Initiative	6,252	10,110	9,050	-1,060	-10.5%
Nuclear Hydrogen Initiative	245	130	500	+370	+284.6%
Nuclear Energy Research Initiative	615	0	0	+0	+0.0%
Advanced Fuel Cycle Initiative	3,380	2,391	3,500	+1,109	+46.4%
Radiological Facilities Management	24,400	31,350	30,028	-1,322	-4.2%
Total, Oak Ridge National Laboratory	35,080	44,156	43,103	-1,053	-2.4%
Pacific Northwest National Laboratory					
Nuclear Energy Plant Optimization	930	200	0	-200	-100.0%
Nuclear Energy Research Initiative	1,052	0	0	+0	+0.0%
Advanced Fuel Cycle Initiative	450	150	150	+0	+0.0%
Total, Pacific Northwest National Laboratory	2,432	350	150	-200	-57.1%
Total, Oak Ridge Operations Office	39,408	46,959	45,785	-1,174	-2.5%
Washington Headquarters					
University Reactor Infrastructure and Education Assistance	86	40	40	+0	+0.0%
Nuclear Energy Plant Optimization	53	50	0	-50	-100.0%
Nuclear Energy Research Initiative	123	207	0	-207	-100.0%
Nuclear Power 2010	119	1,614	2,000	+386	+23.9%
Generation IV Nuclear Energy Systems Initiative	512	2,131	1,887	-244	-11.5%
Nuclear Hydrogen Initiative	286	879	1,000	+121	+13.8%
Advanced Fuel Cycle Initiative	1,276	2,413	1,662	-751	-31.1%
Radiological Facilities Mgmt	452	452	500	+48	+10.6%
Program Direction	24,727	25,843	27,974	+2,131	+8.2%
Total, Washington Headquarters	27,634[a]	33,629	35,063	+1,434	+4.3%
Total, Nuclear Energy[a]	405,807	492,863	513,779	+20,916	+4.2%

[a] Includes funding identified to fund the Environmental Management liability for OVEC in FY 2004.

Site Description

Chicago Operations Office

Idaho Facilities Management
Chicago Operations Office administers a contract with BWXT Service, Inc. for continuing spent nuclear fuel and other related material storage at the BWXT Lynchburg Technology Center.

Argonne National Laboratory

Introduction
Argonne National Laboratory (ANL) is one of the Department of Energy's scientific research laboratories and was the Nation's first national laboratory, chartered in 1946. ANL, located in Illinois, is the main laboratory and occupies 1,500 acres, surrounded by a forest preserve about 25 miles southwest of the Chicago Loop.

University Reactor Infrastructure and Education Assistance
ANL administers the International Student Exchange Program (ISEP). This program provides for student exchanges between the United States and several other nations enabling nuclear engineering and science students the opportunity to work in another nation's national laboratories and increase their training opportunities. ANL also administers part of the university summer internship program.

Generation IV Nuclear Energy Systems Initiative
ANL continues to play an important role in conducting key R&D in support of the Generation IV Nuclear Energy Systems Initiative. ANL participates in system design and evaluation activities for several Generation IV systems, makes important contributions to Generation IV fuels and materials efforts, and leads or participates in joint projects with France, Korea, Canada, Euratom, and Japan. ANL is responsible for staffing the position of Generation IV National Technical Director for Design and Evaluation Methods, who coordinates the U.S. efforts on method development and validation. ANL provides one of two U.S. experts for the Generation IV International Forum (GIF) Experts Group.

Nuclear Hydrogen Initiative
ANL supports the program by conducting laboratory analyses of thermochemical hydrogen production methods, specifically the calcium-bromine (Ca-Br) cycle.

Advanced Fuel Cycle Initiative
ANL staffs the AFCI National Technical Director position for separations technology development, providing leadership over multi-laboratory research activities in aqueous and pyroprocessing spent fuel treatment. ANL also supports the AFCI program by performing reactor physics calculations, including spent fuel throughput calculations, for existing commercial light water reactors and Generation IV thermal and fast reactor concepts. ANL also has the lead for key systems analysis activities, including certain program reports to Congress and their subsequent updates.

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[a] Funding totals exclude reduction for security charge for reimbursable work of $3.003M. In addition, FY 2005 excludes the use of prior year reduction of $4.229M.

Brookhaven National Laboratory

Introduction
The Brookhaven National Laboratory (BNL) is a multiprogram laboratory located in Upton, New York. The Department of Energy's BNL conducts research in the physical, biomedical, and environmental sciences, as well as in energy technologies. Brookhaven also builds and operates major facilities available to university, industrial, and government scientists. BNL provides expertise in the design of spallation targets and also related work in the design of the subcritical multiplier.

Generation IV Nuclear Energy Systems Initiative
BNL is conducting probabilistic risk assessment tasks in support of the Generation IV proliferation resistance studies and conducting an I-NERI project on advanced gas-cooled reactors.

Advanced Fuel Cycle Initiative
BNL supports the AFCI program in the conduct of transmutation and fuel systems analyses.

Radiological Facilities Management
The Brookhaven Linear Isotope Producer (BLIP) at BNL uses a linear accelerator that injects 200 million-electron-volt protons into the 33 giga-electron-volt Alternating Gradient Synchrotron. The BLIP facility operations have decreased from 20 weeks to 10 weeks per year. Isotopes such as strontium-82, germanium-68, copper-67, and others that are used in medical diagnostic applications are produced at BLIP.

Idaho Operations Office
The Idaho Operations Office provides procurement, contract, cooperative agreement, and grant support for the Generation IV Nuclear Energy Systems Initiative, Nuclear Energy Research Initiative, Nuclear Energy Plant Optimization, Nuclear Hydrogen Initiative, Nuclear Power 2010, and the Advanced Fuel Cycle Initiative programs.

University Reactor Infrastructure and Education Assistance
The Idaho Operations Office administers the grants for the NE & HP fellowships and scholarships and the DOE/Industry Matching Grants program, and the NE Education Opportunities program.

Idaho National Laboratory

Introduction
The Idaho National Laboratory (INL) is an extensive research and engineering complex that has been the center of nuclear energy research since 1949. It occupies 890 square miles in southeastern Idaho along the western edge of the Snake River Plain, 42 miles northwest of Idaho Falls, Idaho. There are nine primary facilities at the INL as well as administrative, engineering, and research laboratories in Idaho Falls, Idaho. The Office of Nuclear Energy, Science and Technology (NE) has assumed Lead Program Secretarial Office (LPSO) responsibility for the Idaho Operations Office (ID). With the transfer of INL from EM to NE, INL will become the center for NE's strategic nuclear energy research and development enterprise, INL's revised mission will play a major role in Generation IV nuclear energy systems development, advanced fuel cycle development, and space nuclear power and propulsion applications. The INL will transition its research and development focus from environmental programs to nuclear energy programs while maintaining its multi-program national laboratory status to best serve

ongoing and future DOE and national needs. While INL will focus on its new role as the center for nuclear research and development as a multi-program national laboratory, the INL will continue to pursue appropriate roles in national security, environmental and other activities. Beginning in the second quarter of FY 2005, ANL-West will become part of INL.

University Reactor Infrastructure and Education Assistance
INL administers the University Reactor Infrastructure and Education Assistance Program to provide fuel for university research reactors including fuel for conversions from highly enriched uranium (HEU) to low enriched uranium (LEU), and to ship spent fuel from university reactors to DOE's Savannah River Site. INL also administers the peer-review of the Nuclear Engineering Education Research (NEER) program that provides competitive investigator-initiated, research grants to nuclear engineering schools; the university reactor upgrade program that provides funding for improvements and maintenance of 20-25 university research reactors; and part of the university programs summer internship program.

Generation IV Nuclear Energy Systems Initiative
INL is the lead laboratory for the Generation IV Nuclear Energy Systems Initiative and conducts the program's technical integration activities. INL provides the R&D leadership for the Very High Temperature Reactor (VHTR) and is responsible for the system integration aspects of the Gas Fast Reactor, the Supercritical-Water Reactor, and the Lead Fast Reactor (with LLNL). INL leads or participates in system design and evaluation activities for these systems, and makes important contributions to fuel, materials and energy conversion system efforts. INL, together with ORNL, is the principal laboratory responsible for the development of advanced gas reactor fuel for the VHTR. INL leads or participates in a number of joint projects with France, Korea, Canada, Euratom, and Japan. INL is responsible for staffing the position of Technical Director of the Generation IV International Forum (GIF) Secretariat and supporting staff, and plays a key role in organizing international GIF Policy Group meetings. INL is also responsible for staffing the position of Chair of the GIF Experts Group and for the organization of the GIF Experts Group meetings. INL provides chairs or co-chairs for several GIF System Steering Committees and GIF Project Management Boards.

Nuclear Hydrogen Initiative
INL will provide leadership in executing the Nuclear Hydrogen Initiative. INL will cooperate with SNL, in its role as Generation IV National Technical Director for Energy Conversion Systems, to ensure efficient integration of Generation IV and Nuclear Hydrogen Initiative activities.

Nuclear Energy Plant Optimization
INL is conducting activities which include hot cell modifications to support post irradiation examination of commercial light water reactor fuel and related materials.

Nuclear Power 2010
INL will complete work to assess the transportation and fuel cycle impacts of advanced reactor designs in support of the Early Site Permit applications to be submitted to NRC under the Nuclear Power 2010 program.

Advanced Fuel Cycle Initiative
INL staffs the AFCI National Technical Director positions for Fuels and Systems Analysis, leading the efforts of several national laboratories in the Generation IV and transmutation fuels, systems analysis and computer modeling arenas. INL has the lead role for the design of the AFCI Uranium Extraction

Plus (UREX+) engineering scale experiment (ESE) to establish the feasibility of the advanced aqueous treatment process for conditioning spent nuclear fuel. INL is also responsible for pyroprocessing research and qualification of resulting waste forms. INL capabilities also include nuclear fuel development, irradiation of AFCI transmutation and Generation IV test fuels, post-irradiation examinations, waste and nuclear material characterization, and development of dry, interim storage for spent fuel and other highly radioactive materials.

Radiological Facilities Management
INL operates the radioisotope power systems heat source and test and assembly operations that were transferred from the Mound Site. Activities also include the transfer of neptunium-237 (Np-237) inventory from the Savannah River Site to the INL during FY 2005.

Idaho Facilities Management
NE manages the Advanced Test Reactor (ATR) and other non-reactor nuclear facilities at INL including day-to-day oversight with responsibility for safe operations; startup authority; safety basis documentation approval; accomplishment of program missions on schedule and within budget; and protection of the workers, the public, and the environment. The Idaho Test Reactor Area (TRA) is located within the INL. Since the early 1950s, test reactors, laboratories, hot cells and supporting facilities have been built at TRA. The principal facility operating at TRA is the ATR. The ATR is one of the world's largest and most advanced test reactors. It currently provides vital irradiation testing for reactor fuels and core components, primarily for the U.S. Navy Nuclear Propulsion Program. The ATR can also produce isotopes critically needed by medicine and industry.

Other facilities currently operating on the site are: the ATR Critical Facility reactor, which supports ATR operations; the TRA Hot Cells; the Office of Science's Safety and Tritium Applied Research (STAR) Facility, which does fusion fuel research and has been designated by the Secretary of Energy as a National User Facility; and the INL Applied Engineering and Development Laboratory. ATR operations and a wide variety of scientific research projects are planned to continue at TRA until well into the twenty-first century. The following facilities at TRA are shutdown in a surveillance and maintenance status awaiting decontamination and decommissioning: the Materials Test Reactor (MTR), the MTR Canal, the Engineering Test Reactor, the Coupled Fast Reactivity Measurement Facility, and the Advanced Reactivity Measurement Facility.

The INL Infrastructure account provides for maintaining and upgrading TRA common use facilities and the utility infrastructure to ensure that programmatic, reliability and ES&H requirements are met.

Activities under the Idaho Facilities Management Program involve a number of significant facilities, including the Hot Fuel Examination Facility (HFEF), Fuel Conditioning Facility (FCF), Fuel Manufacturing Facility (FMF), Analytical Laboratory (AL), Electron Microscopy Laboratory (EML), and Radioactive Scrap and Waste Facility (RSWF). These facilities are supported by several other nuclear, radiological and industrial support and office facilities.

Idaho Sitewide Safeguards and Security
The Idaho Sitewide Safeguards and Security program provides protection of nuclear materials, classified matter, government property, and other vital assets from unauthorized access, theft, diversion, sabotage, espionage, and other hostile acts that may cause risks to national security, the health and safety of DOE

and contractor employees, the public or the environment. Program activities include security systems, material control and accountability, information and cyber security, and personnel security. In addition, a protective force is maintained. These activities ensure that the site, personnel, and assets remain safe from potential threats.

University of Las Vegas, Nevada

Nuclear Hydrogen Initiative
UNLV is working with the Department to perform research and development on candidate heat exchanger designs. UNLV's scope has increased to include much of the complimentary materials development activities. UNLV actively involves other universities, industry, and national laboratories, making it an effective tool for developing the future work force and an important part of the NHI program.

Advanced Fuel Cycle Initiative
UNLV is actively engaged in experiments on lead alloy coolants and targets in accelerator-based systems with potential application to fast reactor systems. UNLV also conducts research using student participation.

Lawrence Livermore National Laboratory

Introduction
Lawrence Livermore National Laboratory (LLNL) is a multi-disciplinary research and development laboratory focused on national defense, which has two noncontiguous geographic locations in northern California. LLNL is approximately one square mile and is located 40 miles east of San Francisco. LLNL conducts research in advanced defense technologies, energy, environment, biosciences, and basic science.

Generation IV Nuclear Energy Systems Initiative
LLNL is working on the development of the Generation IV lead-cooled fast reactor and associated fuel cycle. LLNL and INL serve as the Systems Integration Manager for the lead-cooled fast reactor.

Advanced Fuel Cycle Initiative
LLNL provides expertise on the impact of separation technologies on the geological repository.

Los Alamos National Laboratory

Introduction
Los Alamos National Laboratory (LANL) is a multi-disciplinary research facility located on approximately 28,000 acres near the town of Los Alamos in northern New Mexico. LANL is engaged in a variety of programs for DOE and other government agencies. The primary mission for LANL is research and technical activities supporting the Nation's defense. LANL also supports DOE missions related to arms control, non-proliferation, nuclear material disposition, energy research, science and technology, and environmental management. Research and development in the basic sciences, mathematics, and computing have a broad range of applications, including: national security, non-nuclear defense, nuclear and non-nuclear energy, atmospheric and space research, geoscience, bioscience, biotechnology, and the environment.

Generation IV Nuclear Energy Systems Initiative
LANL is working on the development of the Generation IV lead-cooled fast reactor and associated fuel cycle. A senior LANL scientist serves as the National Technical Director for fuels research.

Advanced Fuel Cycle Initiative
LANL supports the AFCI and Generation IV programs through advanced fuels, materials and transmutation engineering research, including accelerator-driven systems. LANL staffs the AFCI National Technical Director position for Transmutation Engineering. LANL also supports activities under the transmutation science education program related to nuclear science and engineering research at U.S. universities.

Radiological Facilities Management
At LANL, a portion of the Plutonium Facility-4 at the Technical Area-55 is dedicated to Pu-238 activities. This capability is the only existing Pu-238 purification and encapsulation capability within the DOE complex and is used to process and encapsulate Pu-238 used in radioisotope power sources for the National Aeronautics and Space Administration (NASA) space exploration missions and national security applications. The LANL capabilities were expanded to include establishing a Pu-238 scrap recovery capability to recycle Pu-238 scrap for use in future missions.

At LANL, the 100 MeV Isotope Production Facility (IPF) will be operable in FY 2005 and will produce major isotopes, such as germanium-68, a calibration source for Positron Emission Tomography (PET) scanners; strontium-82, the parent of rubidium-82, used in cardiac PET imaging; and arsenic-73 used as a biomedical tracer.

Sandia National Laboratories

Introduction
Sandia National Laboratories (SNL) is a research development facility located on approximately 18,000 acres on the Kirtland Air Force Base reservation near Albuquerque, New Mexico and has smaller facilities in Livermore, California and Tonopah, Nevada. The mission of SNL is to meet national needs in the nuclear weapons and related defense systems, energy security, and environmental integrity.

Generation IV Nuclear Energy Systems Initiative
SNL is responsible for staffing the position of National Technical Director for Energy Conversion, who coordinates the U.S. R&D on advanced systems for converting nuclear-generated heat into marketable energy products. This R&D is focused on advanced gas turbo-machinery with helium or supercritical carbon dioxide as the working fluids.

Nuclear Hydrogen Initiative
SNL serves as the technical integrator for the Nuclear Hydrogen Initiative, responsible for coordinating the participation of all laboratories in the development and conduct of the Nuclear Hydrogen Initiative R&D program. SNL is conducting research and development on the sulfur-iodine thermochemical process to complete an integrated demonstration in FY 2007.

Nuclear Energy Plant Optimization
SNL has supported and conducted analysis on a security pilot demonstration project to be conducted at an existing nuclear power plant.

Advanced Fuel Cycle Initiative
SNL serves as NE's technical integrator for AFCI, responsible for coordinating the participation of all laboratories in the development and conduct of the AFCI R&D program. SNL is also an integral part of the AFCI systems analysis effort.

Radiological Facilities Management
NE manages the Annular Core Research Reactor (ACRR) and other non-reactor nuclear facilities at SNL including day-to-day oversight with responsibility for safe operations; startup authority; safety basis documentation approval; accomplishment of program missions on schedule and within budget; and protection of the workers, the public, and the environment. The ACRR is a highly flexible facility applied to the mission requirements of the Department in both isotope and national security applications. National security programs use the ACRR's short duration high-power pulse capabilities for component testing.

Savannah River Operations Office

University Reactor Infrastructure and Education Assistance
Savannah River administers the radiochemistry program.

Nuclear Hydrogen Initiative
Savannah River assists with thermochemical cycle activities.

Advanced Fuel Cycle Initiative
Savannah River assists with separations technology activities, advanced fuels development activities, and systems analysis activities.

Oak Ridge Operations Office

Radiological Facilities Management
To assess USEC Inc.'s (USEC) performance, the Oak Ridge Operations Office will establish a baseline by evaluating and assessing the status of key systems required for plant viability and conduct quarterly status review meetings with USEC. The Oak Ridge Operations Office will also monitor (via an earned value management system) the DOE contractor supporting the Paducah Gaseous Diffusion Plant Operational Assurance Program.

Oak Ridge National Laboratory

Introduction
The Oak Ridge National Laboratory (ORNL) is a U.S. Department of Energy scientific research laboratory located in Oak Ridge, Tennessee. ORNL also maintains the DOE computer code system, software, and documentation at the Radiation Safety Information Computational Center (RSICC) and serves as a repository for DOE computational research activities, including computer software that is developed by NEER research projects. The RSICC computer software is made available to nuclear engineering departments, NERI and NEER awardees.

University Reactor Infrastructure and Education Assistance
ORNL administers part of the university summer internship program.

Generation IV Nuclear Energy Systems Initiative
ORNL and INL are the principal laboratories responsible for the development of advanced gas reactor fuel for the Very High Temperature Reactor. ORNL will fabricate gas reactor fuel in a laboratory-scale facility to supply demonstration fuel for irradiation testing and fuel performance modeling. ORNL also staffs the Generation IV National Technical Director for Materials and conducts much of the materials testing in support of the Generation IV Nuclear Energy Systems Initiative.

Nuclear Hydrogen Initiative
ORNL conducts research on the potential for thermochemical process improvements using membranes, specifically those previously developed for the gaseous diffusion process.

Advanced Fuel Cycle Initiative
ORNL conducts research in basic and applied science in support of the AFCI program. ORNL provides materials expertise to develop spallation targets and specific reactor components, conducts research and development on advanced separations technologies, transmutation fuels for light water and gas-cooled reactors and participates in the development and deployment planning of advanced aqueous spent fuel treatment technologies.

Radiological Facilities Management
ORNL provides the unique capabilities for fabricating carbon insulator and iridium heat sources components for radioisotope power sources used for NASA space exploration missions. These sophisticated heat source components are necessary for the safe operation of these power systems during normal operation and during launch, reentry or other deployment accidents.

Enriched stable isotopes are processed at two new laboratories. The material laboratory performs a wide variety of metallurgical, ceramic, and high vacuum processing techniques; the chemical laboratory performs scraping, leaching, dissolving, oxidizing processes to remove unwanted materials and place the isotope into a "chemically stable" form. Radioactive isotopes are chemically processed and packaged in hot cells in Building 3047.

ORNL provides baseline operation and maintenance of Building 3019, which has 1.5 metric tons of uranium, containing 450 kilograms of U-233. ORNL will begin the construction phase of the uranium-233 project, which includes procuring and installing uranium processing equipment in Building 3019, facility modifications and removal of legacy equipment. This effort will support the uranium-233 down blending and extraction of the medical isotope thorium-229 that is scheduled to begin in FY 2009.

Pacific Northwest National Laboratory

Introduction
Pacific Northwest National Laboratory (PNNL) is a multi-program laboratory located on approximately 640 acres of the Department's Hanford site. PNNL also monitors a marine science lab in Sequim, Washington.

Nuclear Energy Plant Optimization
PNNL is contracting with AEA technologies to transfer the Mechanical Stress Improvement Process to other countries in the former Soviet Union.

Advanced Fuel Cycle Initiative
PNNL provides technical support to the AFCI in the areas of advanced separations, fuels, and systems analysis.

Washington Headquarters

Washington Headquarters includes funding for the FY 2004 reduction to fund OVEC and other small business initiatives. In FY 2005, funding for the use of prior year balances reduction, Small Business and Innovative Research (SBIR), and other small business initiatives is included in Washington Headquarters. FY 2006 includes funding for SBIR and other small business initiatives.

University Reactor Infrastructure and Education Assistance
Includes funding to Morgan State University for the continuation of the DOE/NE Nuclear Energy Bridge Program.

Nuclear Power 2010
Includes funding for activities to be conducted in support of the combined Construction and Operating License (COL) demonstration projects.

Radiological Facilities Management
Includes funding for annual NRC certification for isotope shipping casks, independent financial audits of the revolving fund, and other related expenses.

Infrastructure
Funding Profile by Subprogram

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Infrastructure					
Radiological Facilities Management	63,431	69,110	-547	68,563	64,800
Idaho Facilities Management	75,415	113,050	-897	112,153	97,862
Idaho Sitewide Safeguards and Security	56,343	58,103	-441	57,662	75,008
Total, Infrastructure	195,189[a]	240,263	-1,885	238,378	237,670

Funding Profile – Energy Supply

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Infrastructure					
Radiological Facilities Management	63,431	69,110	-547	68,563	64,800
Idaho Facilities Management	54,119	92,164	-730	91,434	80,100
Total, Infrastructure	117,550	161,274	-1,277	159,997	144,900

Funding Profile – Other Defense Activities

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Infrastructure					
Idaho Facilities Management	21,296	20,886	-167	20,719	17,762
Idaho Sitewide Safeguards and Security	56,343	58,103	-441	57,662	75,008
Total, Infrastructure	77,639	78,989	-608	78,381	92,770

[a] Includes $3.17M identified as use of prior year balances to fund the Environmental Management liability for OVEC in FY 2004.

Mission

The mission of the Infrastructure program is to manage the planning, acquisition, operation, maintenance, and disposition of nuclear facilities and infrastructure to meet the growing demand for isotopes used in medicine, scientific research and homeland security; to provide radioisotope power systems for space exploration and national security; to conduct advanced nuclear energy research; and to ensure the long term future of the domestic nuclear fuel supply.

The Infrastructure program provides for the stewardship of the vital field infrastructure maintained by the Office of Nuclear Energy, Science and Technology (NE). This infrastructure is required to accomplish the assigned missions in areas such as Generation IV nuclear energy research and development, Advanced Fuel Cycle Initiative, space nuclear power applications, production of isotopes for medicine and industry, and naval nuclear propulsion research and development.

Benefits

The Infrastructure program keeps unique DOE facilities and supporting infrastructure in a user-ready status. Facilities supported by this program include reactors, hot cells, and other vital infrastructure needed to carry out advanced nuclear energy technology research and development; construct power systems essential for important national security missions and space exploration; produce, package, and ship radioisotopes for medical and scientific applications; and test new fuels and core components for the Naval Nuclear Propulsion Program. DOE stimulates great advances in science by making its nuclear facilities available to a large user base. The Department does not subsidize direct operational costs related to users, but it does maintain unique radiological facilities and capabilities in a manner that supports their application to missions from various governmental and scientific users.

Beginning in the second quarter of FY 2005, the Idaho National Engineering and Environmental Laboratory (INEEL) will be merged with Argonne National Laboratory-West (ANL-W) to create the Idaho National Laboratory (INL). The Secretary of Energy has designated INL as the center for the Department's strategic nuclear energy research and development efforts. The INL will play a lead role in Generation IV nuclear energy systems development, advanced fuel cycle development, testing of naval reactor fuels and reactor core components, and space nuclear power applications. While the laboratory has transitioned its research and development focus to nuclear energy programs, it is also maintaining its multi-program national laboratory status to serve a variety of current and planned Department and national research and development missions.

Two important research reactors currently operating at this site are the Advanced Test Reactor (ATR) and its supporting ATR Critical Facility. ATR is one of the world's largest and most sophisticated test reactors. It will be a crucial facility in the development of the Generation IV reactor and the Advanced Fuel Cycle Initiative. In addition, ATR currently conducts virtually all irradiation testing of Navy reactor fuels and core components and is vital to achieving the Department's goal of providing the U.S. Navy with safe, militarily effective, nuclear propulsion plants and ensuring their continued safe and reliable operation. The Navy mission is projected to continue until at least mid-century.

The Infrastructure program supports "National Energy Policy" goals by maintaining and operating important landlord infrastructure required for the support of facilities dedicated both to advanced nuclear energy technology research and development and multi-program use. The Landlord manages common-use equipment, facilities, land, and support services that are not directly funded by programs. Key

activities conducted under these programs include ensuring that all landlord facilities meet essential safety and environmental requirements and are maintained at user-ready levels. Other key activities include managing all special nuclear materials contained in these facilities and the disposition of DOE legacy waste materials under NE ownership.

In March 2000, the Nuclear Energy Research Advisory Committee (NERAC) led the creation of the "Nuclear Science and Technology Infrastructure Roadmap" for the entire Department. This study examined the capabilities of the DOE's accelerators, reactors, and hot cells. It also evaluated current nuclear technology missions and facility staffing levels. Finally, the Roadmap estimated future mission requirements and compared them to available and planned facility capabilities, highlighting capability gaps. The Department is refining this analysis with a series of more detailed, site-specific assessments that will not only highlight infrastructure gaps, but also identify requirements for maintenance and upgrade of existing facilities. As a first step, a NERAC task force examined the nuclear R&D infrastructure at the INL to identify the maintenance and upgrades required to meet the Department's nuclear R&D activities planned at Idaho. This assessment was completed in November 2003. Building on this assessment, NERAC created a Subcommittee on Nuclear Laboratory Requirements to identify what characteristics, capabilities, and attributes a world-class nuclear laboratory would possess. This Subcommittee became familiar with the practices, culture, and facilities of other world-class laboratories and used this knowledge in FY 2004 to recommend what needs to be implemented at Idaho. The objective of this activity was to help make Idaho National Laboratory the leading nuclear energy research laboratory in the world within ten years of its inception. DOE and INL are now working to implement the recommendations of both NERAC reports.

Strategic and Program Goals

The Department's Strategic Plan identifies four strategic goals (one each for defense, energy, science, and environmental aspects of the mission) plus seven general goals that tie to the strategic goals. The Infrastructure program supports the following goal:

Energy Strategic Goal

General Goal 4, Energy Security: Improve energy security by developing technologies that foster a diverse supply of reliable, affordable and environmentally sound energy by providing for reliable delivery of energy, guarding against energy emergencies, exploring advanced technologies that make a fundamental improvement in our mix of energy options, and improving energy efficiency.

The Infrastructure program has one program goal that contributes to General Goal 4 in the "goal cascade":

Program Goal 04.17.00.00: Maintain and enhance the national nuclear infrastructure to meet the Nation's energy, environmental, medical research, space exploration, and national security needs.

Contribution to Program Goal 04.17.00.00 (Maintain and enhance the Nation's nuclear infrastructure capability)

The Infrastructure program contributes to this goal by ensuring that the Department's unique facilities, required for advanced nuclear energy technology research and development, are maintained and operated such that they are available to support national priorities. The program manages site equipment, facilities, land, and supporting services that are not directly supported by other programs. Key activities conducted under this program include ensuring that all NE facilities meet essential safety and environmental requirements and are maintained at user-ready levels. Other key activities include managing all special nuclear materials contained in these facilities and the disposition of DOE legacy materials under NE ownership.

Annual Performance Results and Targets

FY 2001 Results	FY 2002 Results	FY 2003 Results	FY 2004 Results	FY 2005 Targets	FY 2006 Targets
Program Goal 04.17.00.00 (Energy Security)					
Infrastructure				*Consistent with safe operations, achieve cumulative variance of less than 10 percent from each of the cost and schedule baselines for the Radiological Facilities Management and Idaho Facilities Management programs.*	*Consistent with safe operations, achieve cumulative variance of less than 10 percent from each of the cost and schedule baselines for the Radiological Facilities Management and Idaho Facilities Management programs.*
Radiological Facilities Management					
	Complete 80 percent of the construction of the Los Alamos Isotope Production Facility, which is needed for the production of short-lived radioisotopes essential for U.S. medical research. (MET GOAL)	*Keep cost and schedule milestones for upgrades and construction of key nuclear facilities within 10 percent of approved baselines. (MET GOAL)*	*Keep cost and schedule milestones for upgrades and construction of key nuclear facilities within 10 percent of approved baselines, using the cost-weighted mean percent variance (+/-10 percent) approach. (MET GOAL)*		
		Safely operate each key nuclear facility within 10 percent of the approved plan, shutting down reactors if they are not operated within their safety envelope and expediting remedial action. (MET GOAL)	*Consistent with safe operations, maintain and operate key nuclear facilities so the unscheduled operational downtime will be kept to less than 10 percent, on average, of total scheduled operating time. (MET GOAL)*		
	Demonstrate the operational capability of radioisotope power systems infrastructure by fabricating quality products at each of the major facilities (i.e., at least eight iridium clad vent sets at ORNL and at least eight encapsulated Pu-238 fuel pellets at LANL). (MET GOAL)	Demonstrate the operational capability of radioisotope power systems infrastructure by fabricating flight quality products at each of the major facilities (i.e., at least eight iridium clad vent sets at ORNL and at least eight encapsulated Pu-238 fuel pellets at LANL), and by processing at least 2 kilograms of scrap Pu-238 at LANL. (MET GOAL)	*Maintain and operate radioisotope power systems facilities with less than 10 percent unscheduled downtime from approved baseline. (MET GOAL)*		

FY 2001 Results	FY 2002 Results	FY 2003 Results	FY 2004 Results	FY 2005 Targets	FY 2006 Targets
	Bring the full-scale scrap recovery line to full operation and begin processing Pu-238 scrap for reuse in ongoing and future missions requiring use of radioisotope power systems. (MIXED RESULTS)				
Idaho Facilities Management					
	Meet the milestones for legacy waste cleanup at Test Reactor Area (TRA) in the Voluntary Consent Order between the State of Idaho and DOE, and efficiently manage resources to limit growth in backlog of maintenance to no more than 10 percent. (MET GOAL)		*Keep cost and schedule milestones for upgrades and construction of key nuclear facilities within 10 percent of approved baselines, using the cost-weighted mean percent variance (+/-10 percent) approach. (same target used for Radiological Facilities Management)* *(MET GOAL)*		
					Validate the Asset Condition Index (ACI)—a corporate measure of the condition of facility assets based on industry inspection and deficiency standards—and achieve an ACI rating of good for 45-50 percent of active mission-critical INL-NE facilities.
Idaho Sitewide Safeguards and Security					
	During FY 2002, no national security incidents occurred within NE Idaho sitewide cyber systems and security areas that caused unacceptable risk or damage to the Department. (MET GOAL)	Complete the Idaho Integrated Safeguards and Security Plan to assure appropriate protective measures are taken commensurate with the risks and consequences for both the laboratories on the Idaho site. (MET GOAL)	Issue the Design Basis Threat Implementation Plan for the Idaho National Engineering and Environmental Laboratory and Argonne National Laboratory-West. (MET GOAL)	Complete FY 2005 actions at the Idaho Site required to implement the May 2003 Design Basis Threat (DBT) as defined in the Program Management Plan that remain consistent with the requirements of the October 2004 DBT.	Install all physical protective systems and augment the Security Police Officer force as outlined in the Integrated Design Basis Threat Implementation Plan.

Means and Strategies

NE will use various means and strategies to achieve its program goals. However, various external factors may impact the ability to achieve these goals. NE also performs collaborative activities to help meet its goals.

The Department will implement the following means:

- Ensure that mission essential systems, resources, and services are identified to conduct priority missions for the Department and are maintained and operated in compliance with DOE, Federal, and State safety and environmental requirements in a secure and cost-effective manner. For Idaho Facilities Management, this will be accomplished by the implementation of the "INL Ten Year Site Plan" that will be updated annually.

- Maintain isotope production facilities in a ready, safe and environmentally compliant condition and maintain the unique infrastructure and capability to deliver advanced radioisotope power systems for space and national security missions.

The Department will implement the following strategies:

- Idaho Facilities Management mission essential facilities will be identified in the "INL Ten Year Site Plan." Detailed work planning and funding requests will result from implementation of this Plan that will be updated annually.

- Efficient use of existing facilities and staff, backup supply agreements, upgrade of present facilities, purchase of needed equipment, and investing in new facilities as warranted by demand. The challenges to the program will continue as scientific and medical research result in increased demand for new isotope products.

The following external factors could affect NE's ability to achieve its strategic goal:

- Medical Isotope Infrastructure Key External Factors: The Department is working to fully address its customers' requirements and to forecast future trends. This is being done through frequent interactions between customers and Program staff; data obtained from site visits and attendance at society exhibitions (e.g., the Society of Nuclear Medicine); and coordination of isotope activities with stakeholders in the isotope community including other Federal agencies. Research on market sizes, pricing pressures, competition, and customer feedback also is being obtained through independent surveys and studies, as well as Program management assessments. For example, reports of both the NERAC Subcommittee and an Expert Panel convened by the Medical University of South Carolina in 1998 observed that the program's infrastructure cannot adequately keep pace with the changing needs of the research community.

- Idaho Facilities Management Key External Factors: Energy policy changes related to the emphasis on future nuclear energy R&D would impact the focus and direction of the Idaho Facilities Management Program, but not necessarily its overall cost and long-term liabilities. Increased nuclear energy R&D needs resulting from new mission initiatives could require accelerated recapitalization to support enhanced use of research facilities and earlier enhancement of the existing infrastructure. On the other hand, reduced nuclear energy R&D could generate a larger near-term

inventory of excess facilities and shift funding needs from upgrades and improvements to disposition (e.g., clean-up and dismantlement).

With the award of the new Idaho National Laboratory contract, Idaho will become a truly multi-program national laboratory with NE being the lead program. Through their Idaho Operations Office, NE will integrate and oversee program activities and manage the Department of Energy and Work for Others contracts. The Office of Environmental Management (EM), in executing the Idaho Cleanup Project (ICP), will initially be the largest program at the site, but that will change rapidly over time as the clean-up progresses. As EM completes its cleanup activities, facilities will be returned to NE. Thus, the Idaho Facilities Management program will adjust its activities to accommodate needs of the ICP.

In carrying out the program's mission, NE performs the following collaborative activities:

- Coordinates with national security agencies and NASA to develop radioisotope power systems for their use to ensure proposed systems and technologies satisfy the necessary technical requirements identified by customers for identified mission scenarios.

- The Department finances all isotope production and distribution expenses through cash collections from both federal and non-federal customers. The program is working to fully address its customers' requirements and to forecast future trends. This is being done through frequent interactions between customers and program staff, data obtained from customer site visits and attendance at society conferences (*e.g.*, the Society of Nuclear Medicine), and coordination of isotope activities with stakeholders in the isotope community, including other Federal agencies.

Validation and Verification

To validate and verify program performance, NE will conduct various internal and external reviews and audits. NE's programmatic activities are subject to continuing review by the Congress, the General Accountability Office, the Department's Inspector General, the Nuclear Regulatory Commission, the U.S. Environmental Protection Agency, state environmental and health agencies, the Defense Nuclear Facilities Safety Board, and the Department's Office of Engineering and Construction Management (including DOE Real Property Management Order). In addition, NE provides continual management and oversight of its vital field infrastructure programs—the Radiological Facilities Management program, the Idaho Facilities Management program, and the Idaho Sitewide Safeguards and Security program. Periodic internal and external program reviews evaluate progress against established plans. These reviews provide an opportunity to verify and validate performance. Monthly, quarterly, semi-annual and annual reviews, consistent with program management plans, are held to ensure technical progress, cost and schedule adherence, and responsiveness to program requirements.

NERAC subcommittees evaluate progress of NE's research and development programs. NERAC similarly reviews specific program plans as they are being formulated. In early FY 2004, NERAC established a Subcommittee on Evaluations. The full NERAC and its subcommittees have provided independent evaluations in the past, but these evaluations never comprehensively covered the entire nuclear energy program. The new Subcommittee engages appropriate experts to monitor, on a continual basis designated NE programs and evaluate the progress of these programs against (a) direction and guidance provided by the full NERAC and (b) program plans and performance measures developed by

the program under evaluation. This Subcommittee provides arm's length, independent assessments that are critical to OMB's evaluation of NE programs.

Program Assessment Rating Tool (PART)

The Department implemented a tool to evaluate selected programs. PART was developed by OMB to provide a standardized way to assess the effectiveness of the Federal Government's portfolio of programs. The structured framework of the PART provides a means through which programs can assess their activities differently than through traditional reviews. The Infrastructure program has incorporated feedback from OMB during the FY 2006 assessment into the FY 2006 Budget Request and has taken or will take the necessary steps to continue to improve performance.

The results of the FY 2006 review are reflected in the FY 2006 Budget Request as follows:

The assessment found that the program is effectively targeted through the formal Idaho National Laboratory Ten Year Site Plan that identifies the mission-essential infrastructure and facilities, planned annual work scope, and performance measures for the laboratory. An overall PART score of 49 was achieved with a perfect 100 score for Section I, Program Purpose & Design; a score of 89 for Section II, Strategic Planning; a perfect 100 score for Section III, Program Management; and a score of 0 for Section IV, Program Results/Accountability. This is a new program and accomplishments have yet to be demonstrated.

Funding by General and Program Goal

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
General Goal 4, Energy Security			
Program Goal 04.17.00.00: Maintain and enhance the national nuclear infrastructure capability	195,189	238,378	237,670
Total, General Goal 4 (Infrastructure)	195,189	238,378	237,670

Idaho Facilities Management

Funding Schedule by Activity

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Idaho Facilities Management					
INL Operations	73,120	110,642	86,907	-23,735	-21.5%
INL Construction	2,295	1,511	10,955	+ 9,444	+625.0%
Total, Idaho Facilities Management	75,415	112,153	97,862	-14,291	-12.7%

Funding Schedule by Activity – Energy Supply

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Idaho Facilities Management – Energy Supply					
INL Operations	51,824	89,923	69,145	-20,778	-23.1%
INL Construction	2,295	1,511	10,955	+9,444	+625.0%
Total, Idaho Facilities Management – Energy Supply	54,119	91,434	80,100	-11,334	-12.4%

Funding Schedule by Activity – Other Defense Activities

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Idaho Facilities Management – Other Defense Activities					
INL Operations	21,296	20,719	17,762	-2,957	-14.3%
Total, Idaho Facilities Management – Other Defense Activities	21,296	20,719	17,762	-2,957	-14.3%

Description

Beginning in the second quarter of FY 2005, the research portion of the Idaho National Engineering and Environmental Laboratory will be merged with Argonne National Laboratory - West (ANL-W) to form the basis of the Idaho National Laboratory (INL). The INL is a multi-program national laboratory that employs its research and development assets to pursue assigned roles in a range of research and national security activities.

The purpose of the Idaho Facilities Management program is to provide the INL with the site-wide Landlord infrastructure required to support technical efforts such as research on the Advanced Fuel Cycle Initiative, Generation IV nuclear energy systems, the Space and Defense Power Systems program, and the Navy's nuclear propulsion research and development program.

Benefits

The Idaho Facilities Management program supports "National Energy Policy" goals by maintaining and operating important INL basic infrastructure that is required to support facilities dedicated to advanced nuclear energy technology research and many other Federal government activities. As the landlord of the INL, the Office of Nuclear Energy, Science and Technology (NE) manages common-use equipment, facilities, land, and support services that are not directly funded by programs. Key activities conducted under these programs include assuring that all landlord facilities meet essential safety and environmental requirements and are maintained, managing all special nuclear materials contained in these facilities, and the disposition of DOE legacy waste materials under NE ownership.

To address the requirements to support the missions at INL, NE has developed an INL Ten-Year Site Plan that presents a mission needs analysis of existing facilities and infrastructure and clearly identifies the investments needed at the site to support its projected mission profile. The Plan provides recommendations for short- and long-term recapitalization of existing mission essential facilities and infrastructure and presents a plan to upgrade laboratory facilities to support emerging and growing laboratory missions such as the Advanced Fuel Cycle Initiative, the Generation IV Nuclear Energy Systems Initiative, and a range of national security technology programs. The Plan identifies and prioritizes the projects, activities, and mission resource requirements for real property assets that cover a ten-year planning horizon.

The Plan includes a prioritized listing of maintenance, repair and recapitalization projects necessary to correct the maintenance backlog. The Plan is organized to assure the maintenance backlog is stabilized by 2007, and reduced to the industry benchmark of 2%-4% of Replacement Plant Value by 2013. The use of this industry benchmark was recommended by the National Research Council's Congressionally-sponsored 1998 study Stewardship of Federal Facilities. The Plan describes how NE could recapitalize INL, acquire new facilities, infrastructure systems and equipment, and dispose of facilities no longer needed. The Plan is the product of the detailed INL planning process and provides performance measures to show how the physical state of the complex is expected to change over time. The FY 2006 budget request has been based on this Plan. The Plan will be updated annually to reflect new program and infrastructure requirements as they emerge.

Detailed Justification

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
INL Operations	**73,120**	**110,642**	**86,907**
▪ **Laboratory Transition and Restructuring**	**0**	**43,453**	**0**

The $43.8M requested for FY 2005 was intended to cover the one-time costs associated with workforce restructuring as the Idaho National Engineering and Environmental Laboratory contract was divided into separate laboratory and clean-up contracts. All restructuring associated with the establishment of the INL will be complete in FY 2005.

▪ **Infrastructure Operations** **52,319** **55,303** **64,582**

Manage the operation of common use and user facilities at the INL, including operating and maintaining nuclear and radiological facilities, ensuring environmental compliance, and providing infrastructure program management and support for planning, managing, and administering the Idaho Facilities Management Program. The infrastructure includes 890 square miles of land, 298 buildings, associated support structures, a full complement of utilities, including communication and data transmission systems, approximately 800 miles of roads, 61 miles of electrical transmission lines and 14 miles of railroad lines. Operating activities include grounds inspection and maintenance; inactive facilities surveillance and maintenance; excess facility decommissioning and disposition; disposition of legacy materials at an off-site commercial facility; and general plant project, capital equipment, and line item projects. Management also includes various crosscutting contracts and obligations between the Department of Energy and other entities including the National Oceanic and Atmospheric Administration, the Shoshone and Bannock Indian Tribes, the State of Idaho, and payments in lieu of taxes for the four counties in which the INL is located.

The Advanced Test Reactor (ATR) is essential to ongoing and planned national security and energy research programs at the Idaho National Laboratory. Independent review teams of industry experts have found that ATR required engineering analysis, increased maintenance, and recapitalization of systems to remain a viable research tool for the next thirty to forty years. The current estimated incremental cost of repairs and upgrades is about $200 million dollars over a ten year period. This is a prudent investment since the replacement value of the reactor is about $2 billion dollars. This review prompted several projects, most notably an exhaustive Design Basis reconstitution. This project is in progress and results to date are favorable. In FY 2006 work should be complete on a Design Basis reconstitution that will verify the reactor meets modern nuclear safety standards. The recommendations of this review and other analyses will be incorporated into an INL Ten Year Site Plan (TYSP). This plan, updated annually, is the foundation for INL facilities and infrastructure strategic planning and the cornerstone of the Program's initiative to restore the INL and the facilities on the site. The INL TYSP is requirements based and clearly demonstrates the results that will be accomplished for the resources expended, consistent with the President's Management Agenda (PMA) and NE's performance and budget integration initiative. Specifically, the TYSP includes a prioritized list of recapitalization projects that is based upon a formal prioritization methodology that preferentially targets deferred maintenance reduction, particularly for mission-essential facilities and infrastructure. As a result, the FY 2006 Idaho Facilities Management budget request includes an

(dollars in thousands)

FY 2004	FY 2005	FY 2006

increase of $12.1 million in operations and maintenance. In FY 2006 there will be significant progress in developing a long term operating plan that will validate maintenance, staffing, and recapitalization needs. A long term analysis of fuel and beryllium components will also be completed to support long term requirement plans. Small-dollar-value projects, equipment, and critical component purchases will also be funded as they are identified in the long term operating plan.

- **IT Investments** **0** **0** **4,400**

The IT Investments includes activities such as:

Network Infrastructure Improvements: Provide the connectivity at INL required to facilitate engineering and research under the NE and national security mission areas. The INL network infrastructure supporting mission research and engineering is of minimal capacity. The 1 Gigabyte switches currently in place to control traffic between the engineering research buildings at the laboratory are insufficient for High Performance Computing (HPC). Implementation of a new HPC computing capability will further impact network capacities. Additionally, connectivity to off-site should be improved to facilitate collaborative research and file transfer between other DOE complex labs involved in the mission research. ($1.6M)

Engineering Workstation Replacements: Provide replacement of engineering workstations infrastructure in the R&D lead mission areas with state-of-the-art equipment, and provide follow-on budget in subsequent fiscal years, to support a shortened lifecycle (3 Year) infrastructure replacement program. The Engineering and Research workstations investment at the lab has had machine life-cycle timetables extended to well beyond the 5 year time frame over the last decade. Currently 2/3 of the engineering workstation assets are 5 years or older - with approximately 20% being in excess of 10 years old. ($1.3M)

High Performance Computing: Conduct a detailed computational infrastructure assessment and High Performance Computing strategy for the new INL. ($1.5M)

- **General Plant Projects** **10,637** **9,033** **8,907**

The GPP budget line includes projects such as:

- The Minimum Safe/Caretaker Upgrades Project - Most of the site infrastructure is 30 to 50 years old. Historically, between budget submission and the budget execution year, urgent infrastructure maintenance needs emerge that were not planned on. These problems typically pose a risk to the employees, the public or the environment or impact the ability of the site to meet its mission objectives. This annual project sets aside funds to address these unanticipated urgent infrastructure-related environment, safety, and health problems.

(dollars in thousands)

FY 2004	FY 2005	FY 2006

- ATR Emergency Injection System Upgrade – ATR emergency core cooling water is currently supplied by the Test Reactor Area (TRA) site-wide firewater system. To meet new safety standards for the firewater emergency core cooling, the proposed modification and upgrade to the Emergency Core Cooling System (ECCS) will create a dedicated firewater system for ATR that is independent of the existing TRA firewater supply system. FY 2006 funding will be used to complete design and fabrication of the ATR Emergency Injection System Upgrade to meet new safety standards.

- Diesel Generator Feed to Deep Well Pump #4 – The deep well pumps supply site water, including firewater. Firewater is used for emergency cooling. All deep well pumps are supplied from commercial power. The design basis reconstitution project has identified lack of a diesel backup power supply as a vulnerability that results in increased risk assumed by DOE in the approved Safety Analysis Report for ATR.

- **Capital Equipment** **5,395** **2,853** **9,018**

  Purchase equipment in accordance with the "INL Ten Year Site Plan". Much of the equipment currently in use at the INL is 30 to 50 years and failing. In many cases, replacement parts are unavailable from vendor stock and must be custom manufactured. This funding primarily provides upgrades and replacements for aged, deteriorated equipment and procurement of new equipment to meet emerging requirements. This includes such things as: shop and miscellaneous maintenance equipment, vehicles and heavy equipment, additional oscilloscopes, bandwidth capacity network upgrades and instrumentation/hardware.

  Funding also provides for beginning replacement of ATR's five primary heat exchangers. Existing heat exchangers are more than 40 years old and are approaching the end of their useful life. The carbon steel shells of the heat exchangers exhibit pit corrosion so far resulting in one leak requiring shut down of the reactor for repair. General corrosion has reduced wall thickness of the heat exchangers to the extent that replacement is now required. Failure of one or more of the five heat exchangers would severely impact the ability of the ATR to accomplish its mission.

- **Gas Test Loop Upgrade at the Advanced Test Reactor** **4,769** **0** **0**

  This upgrade will provide for the design, fabrication, assembly, start-up testing, and installation of a gas test loop assembly in the Advanced Test Reactor. Using FY 2004 funds, final preparation of pre-conceptual documentation for Critical Decision 0, "Approval of Mission Need" was completed on June 30, 2004. Project Engineering and Design (PED) funds are being requested through a PED datasheet (06-E-200) in FY 2006 to start preliminary design for the project. See the item, "06-E-200, Nuclear Energy Project Engineering and Design" under *INL Construction*, below.

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
INL Construction	**2,295**	**1,511**	**10,955**
▪ **95-E-201, TRA Fire & Life Safety Improvements**	**490**	**0**	**0**

The highest priority remaining work scope will be completed in FY 2004 and the project closed out in FY 2005 using prior year funds.

▪ **99-E-201, TRA Electrical Utility Upgrade**	**1,805**	**1,511**	**0**

Complete the TRA Electrical Utility Upgrade Line Item Capital Project, which replaces most of the obsolete TRA high voltage electrical distribution system that had become inadequate for current tenant needs and unreliable due to age and dwindling availability of spare parts.

▪ **06-E-200, Nuclear Energy Project Engineering and Design**	**0**	**0**	**7,870**

- PED funding for the Gas Test Loop in the Advanced Test Reactor project will provide for the design and construction of a gas test loop to support the irradiation testing requirements of the Generation IV and Advanced Fuel Cycle Initiative Programs. Funding in FY 2006 provides for acceleration of the Architect-Engineering services for preliminary engineering design; final design and project management on this project. ($4.7M)
- PED funding for the Remote Treatment Project provides infrastructure necessary to carry out the near-term waste management needs stemming from the nuclear research legacy at the Idaho National Laboratory. This project would be designed to characterize, segregate, treat, repackage, and ship remote-handled wastes. Funding in FY 2006 will be used to proceed with Title I design. ($3.1M)

▪ **06-E-201, Gas Test Loop in the Advanced Test Reactor (ATR)**	**0**	**0**	**3,085**

This project will provide for a unique Gas Test Loop in the ATR to support the irradiation testing requirements of the Generation IV Reactor and Advanced Fuel Cycle Initiative Programs. This new facility in ATR will be a significant contributor to the accomplishment of the Department's new strategic nuclear energy mission for the Idaho National Laboratory. Funds were provided in FY 2004 for final preparation of pre-conceptual documentation for Critical Decision 0, "Approval of Mission Need" which was completed on June 30, 2004. Funding in FY 2006 will be used for initiation of construction activities including procurement of long lead items.

Total, Idaho Facilities Management	**75,415**	**112,153**	**97,862**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
INL Operations	
▪ **Laboratory Transition and Restructuring**	
The decrease of $43,453,000 reflects one-time costs in FY 2005 associated with restructuring the Idaho laboratory complex and supporting site infrastructure services.	-43,453
▪ **Infrastructure Operations**	
In working towards the goal of achieving and maintaining an expenditure rate of 2-4 percent of Replacement Plant Value, a level recommended by the National Academy of Sciences, for the facilities at INL, an increase of $9,279,000 is required to baseline routine maintenance and repair in FY 2006. This funding increase will also support an independent review team's recommendation to increase maintenance and recapitalization systems at the ATR, by the development of a long range operating plan for the ATR and by addressing small projects, equipment, and critical component purchases as they are identified in the plan. These increases are consistent with the prioritized list projects established in the Ten Year Site Plan that preferentially targets deferred maintenance reduction, particularly for mission-essential facilities and infrastructure.	+9,279
▪ **IT Investments**	
Consistent with the new mission of the INL to become the center for the Department's strategic nuclear energy research and development efforts, an increase of $4,400,000 reflects Network Infrastructure Improvements; Engineering Workstation Replacements; and High Performance Computing to support the national security and energy research programs	+4,400
▪ **General Plant Projects**	
Consistent with the prioritized list of recapitalization projects identified in the Ten Year Site Plan to achieve and maintain an expenditure rate of 2-4 percent of Replacement Plant Value, a decrease of $126,000 is required for facility upgrades	-126
▪ **Capital Equipment**	
Consistent with the prioritized list of recapitalization projects identified in the Ten Year Site Plan to achieve and maintain an expenditure rate of 2 to 4 percent of Replacement Plant Value, an increase of $6,165,000 is due to installation of a diesel generator backup power source for deep well pump #1	+6,165
Total, INL Operations	**-23,735**

	FY 2006 vs. FY 2005 ($000)
INL Construction	
▪ **99-E-200, TRA Electrical Utility Upgrade**	
The decrease of $1,511,000 reflects completion of the project in FY 2005 in accordance with the project plan	-1,511
▪ **06-E-200, Nuclear Energy Project Engineering and Design**	
Consistent with the regulatory requirements and the advanced experimental capabilities associated with the new nuclear energy missions at INL identified in the Ten Year Site Plan, the increase of $7,870,000 supports Architect-Engineering services for preliminary and final engineering design and project management for the Remote Treatment Project and the Gas Test Loop in the ATR	+7,870
▪ **06-E-201, Gas Test Loop in the Advanced Test Reactor**	
The increase of $3,085,000 will be used for initiation of construction activities including procurement of long lead items...	+3,085
Total, INL Construction	**+9,444**
Total Funding Change, Idaho Facilities Management	**-14,291**

Capital Operating Expenses

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Capital Equipment	5,395	2,853	9,018	+6,165	+216.1%
General Plant Projects/ANL-W General Site Upgrades	10,637	9,033	8,907	-126	-1.4%
Total, Capital Operating Expenses	16,032	11,886	17,925	+6,039	+50.8%

Construction Projects

(dollars in thousands)

	Total Estimated Cost (TEC)	Prior-Year Appropriation	FY 2004	FY 2005	FY 2006	Unappropriated Balance
06-E-201, Gas Test Loop in the Advanced Test Reactor, Idaho	22,400	0	0	0	3,085	19,315
06-E-200, Nuclear Energy Project Engineering and Design. Idaho	32,070	0	0	0	7,870	24,200
95-E-201, TRA Fire & Life Safety Improvements Project, Idaho	14,768	14,278	490	0	0	0
99-E-200, TRA Electrical Utility Upgrade, Idaho	7,720	4,404	1,805	1,511	0	0
Total, Construction			2,295	1,511	10,955	

Idaho Sitewide Safeguards and Security

Funding Schedule by Activity

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Idaho Sitewide Safeguards and Security					
Idaho Operations Office [a]	56,343	57,662	75,008	+17,346	+30.1%
Less: Security Charge for Reimbursable Work	0	-3,003	-3,003	+0	+0.0%
Total, Idaho Sitewide Safeguards and Security	56,343	54,659	72,005	+17,346	+31.7%

Funding Schedule by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Idaho Operations Office					
Protective Forces	31,325	33,216	35,414	+2,198	+6.6%
Security Systems	11,398	10,315	24,202	+13,887	+134.6%
Transportation	55	57	84	+27	+47.4%
Information Security	1,794	1,855	1,932	+77	+4.2%
Personnel Security	1,691	1,735	1,853	+118	+6.8%
Material Control & Accountability	2,926	3,040	3,471	+431	+14.2%
Program Management	1,960	2,021	2,637	+616	+30.5%
Cyber Security	5,194	5,423	5,415	-8	-0.1%
Total, Idaho Operations Office	56,343	57,662	75,008	+17,346	+30.1%

[a] Program levels reflect Work for Others (WFO) before the bottom line reduction to the NE appropriation for a "Security Charge for Reimbursable Work." This offset is displayed above by fiscal year. The new budget authority, as well as the offsetting collections (such as when other agencies are using the facility), for the WFO portion of the S&S budget is included in Departmental Administration's Cost of Work for Others program, which is managed by the Department's Office of Management, Budget and Evaluation.

Description

The mission of the Idaho Sitewide Safeguards and Security (S&S) program is to protect DOE interests from theft, diversion, sabotage, espionage, unauthorized access, compromise, and other hostile acts, which may cause unacceptable adverse impacts on national security; program continuity; or the health and safety of employees, the public, or the environment.

Benefits

This program is designed to support DOE's Defense Strategic Goal to protect our national security. The Idaho Sitewide Safeguards and Security program provides protection of nuclear materials, classified matter, government property, and other vital assets from unauthorized access, theft, diversion, sabotage, espionage, and other hostile acts that may cause risks to national security, the health and safety of DOE and contractor employees, the public or the environment.

Beginning in the second quarter of FY 2005, the Idaho National Engineering and Environmental Laboratory (INEEL) and the Argonne National Laboratory-West site will merge under a single new contract. The resulting laboratory will be called the Idaho National Laboratory (INL). This integration will continue in FY 2005 with additional changes anticipated to increase efficiency and contain costs. As part of this merger, the two existing safeguards and security programs at the Idaho site will be merged into a single program. Initiation of the new Departmental Design Basis Threat (DBT) requirements will begin in FY 2005.

DOE will implement the new DBT requirements using a risk-informed approach to physical upgrades and by seeking efficiencies associated with combining the two contracts. A recent review of intelligence data indicated that the threat to DOE facilities is higher than previously estimated, although detailed vulnerability assessments have not yet been completed. However, the Department's Office of Independent Oversight and Performance Assurance conducted a site assistance visit at Idaho to identify opportunities to increase security in a more cost effective manner through better integration of security technology with site security operations. Pending the availability of detailed assessments, which will guide responses such as the size and nature of protective forces, the Department believes that early investment in improved positions for defending forces, more capable detection systems, and technological deterrent devices at target locations will result in cost avoidance over the lifetime of enduring facilities by reducing the number of additional protective force members needed to counter the revised threat. The FY 2006 request reflects increased funding to permit these investments.

The following is a brief description of the type of activities performed under the Idaho Sitewide Safeguards and Security program:

Protective Forces

The Physical Protection Protective Forces activity provides for security guards or other specialized personnel and equipment, training, and management needed to effectively carry out the protection tasks during normal and security emergency conditions.

Security Systems
The Physical Security Protection Systems activity provides for equipment to protect vital security interests and government property per the local threat. Equipment and hardware includes performance testing, intrusion detection and assessment, fences, barriers, secure storage, lighting, sensors, entry/access control devices, locks, explosives detection, and vital components and tamper-safe monitoring.

Transportation
The Transportation activity provides for all security-related transportation for intra-site transfers of special nuclear materials (including safe havens), weapons, and other classified material that is not funded through the National Nuclear Security Administration's Office of Transportation Safeguards (OTS). The safeguards and security program pays for cost of protection and secure movement.

Information Security
This activity ensures that classified and sensitive unclassified matter is adequately protected. The scope of this activity includes export controls, classified matter protection and control, technical surveillance countermeasures, and operations security.

Personnel Security
The Personnel Security activity includes clearance program, adjudication, security awareness and education, visit control, Personnel Security Assurance Program, psychological/medical assessments, and administrative review costs. Security Investigations (SI) activities performed by the Federal Bureau of Investigation (FBI) and the Office of Personnel Management (OPM) associated access authorizations are funded by the Office of Security and are not requested/displayed in the Office of Nuclear Energy, Science and Technology's budget.

Material Control and Accountability
The Material Control and Accountability (MC&A) activity provides for the protection of special nuclear materials (SNM), nuclear weapons, test devices, and weapons components and parts. The cost of activities such as MC&A training, proper measurement of materials, and performing a physical inventory are included in the budgets of those programs responsible for processing or storing SNM, and nuclear weapons components and parts, and are not included here.

Program Management
The Program Management activity includes policy oversight and development and updating of security plans, assessments, and approvals to determine if assets are at risk. Also encompassed are contractor management and administration, planning and integration of security activities into facility operations.

Cyber Security
The Cyber Security activity includes security-related unclassified computer security and classified computer security, protecting the transmission of cyber infrastructure.

Detailed Justification

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Idaho Sitewide Safeguards and Security	**56,343**	**57,662**	**75,008**

Program activities include security systems, material control and accountability, information and cyber security, and personnel security. In addition, a protective force is maintained. These activities ensure that the site, personnel, and assets remain safe from potential threats. FY 2006 funding includes investments to implement the Department's required preparations as guided by the Design Basis Threat. These investments focus on infrastructure improvements that can be identified in advance of the completion of detailed vulnerability assessments and will save cost over time. This program will conduct the following activities in FY 2006:

- Continue implementation activities of the 2003 DBT at the Idaho site. Such as:
  - Complete design, construction, and performance testing of access control systems upgrades at key buildings used to house special nuclear materials.
  - Provide additional camera coverage, alarms, and vehicle barrier with Delta Barrier for vehicle access.
  - Provide additional alarms for spent fuel pools, video coverage, and hardened guard post.
  - Provide digital video recorder and upgrade the Central Alarm Station Multiplexer Control System.
  - Provide funding for the Security Support facility.
- Initiate 2004 DBT to include such activities as:
  - Procurement and installation of barriers and active denial systems – These upgrades include barriers to inhibit adversarial advance around the property protection area at the Idaho National Laboratory.
  - Extended detection systems – Systems upgrades at Idaho National Laboratory are required to increase detection and assessment capabilities outside the property protection area.
  - Procuring and installing remote weapons platforms.

Subtotal, Idaho Sitewide Safeguards & Security	**56,343**	**57,662**	**75,008**
Less: Security Charge for Reimbursable Work	0	-3,003	-3,003
Total, Idaho Sitewide Safeguards & Security	**56,343**	**54,659**	**72,005**

Explanation of Funding Changes

	FY 06 vs. FY 05 ($000)
Idaho Sitewide Safeguards and Security	
▪ The increase of $17,346,000 reflects ongoing implementation of the security enhancements required by the FY 2003/2004 Design Basis Threat.	+17,346
Total Funding Change, Idaho Sitewide Safeguards and Security	**+17,346**

Capital Operating Expenses

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
General Plant Project	3,150	700	4,476
Capital Equipment	1,736	4,681	1,434
Total, Capital Operating Expenses	4,886	5,381	5,910

Program Direction

Funding Profile by Category

(dollars in thousands/whole FTEs)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Program Direction					
Salaries and Benefits	45,088	45,826	46,673	+847	+1.8%
Travel	2,011	2,167	2,167	+0	+0.0%
Support Services	3,953	2,700	2,700	+0	+0.0%
Other Related Expenses	8,946	9,342	9,569	+227	+2.4%
Total Program Direction, Energy Supply and Other Defense Activities	59,998	60,035	61,109	+1,074	+1.8%
Headquarters FTEs	142	146	151	+5	+3.4%
Field FTEs	224	217	211	-6	-2.8%

Funding Profile by Category - Energy Supply

(dollars in thousands/whole FTEs)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Program Direction – Energy Supply					
Salaries and Benefits	20,347	21,457	22,881	+1,424	+6.6%
Travel	1,036	1,167	1,192	+25	+2.1%
Support Services	3,106	1,830	1,853	+23	+1.3%
Other Related Expenses	1,530	2,062	4,080	+2,018	+97.9%
Total Program Direction – Energy Supply	26,019	26,516	30,006	+3,490	+13.2%
Headquarters FTEs	142	146	151	+5	+3.4%
Field FTEs	23	14	14	+0	+0.0%

Funding Profile by Category - Other Defense Activities

(dollars in thousands/whole FTEs)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Program Direction – Other Defense Activities					
Salaries and Benefits	24,741	24,369	23,792	-577	-2.4%
Travel	975	1,000	975	-25	-2.5%
Support Services	847	870	847	-23	-2.6%
Other Related Expenses	7,416	7,280	5,489	-1,791	-24.6%
Total Program Direction – Other Defense Activities	33,979	33,519	31,103	-2,416	-7.2%
Headquarters FTEs	0	0	0	+0	+0.0%
Field FTEs	201	203	197	-6	-3.0%

Program Direction
Funding Profile by Category

(dollars in thousands/whole FTEs)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Idaho Operations Office					
Salaries and Benefits	25,920	24,369	23,792	-577	-2.4%
Travel	1,061	1,000	975	-25	-2.5%
Support Services	925	870	847	-23	-2.6%
Other Related Expenses	5,469	5,996	5,489	-507	-8.5%
Total, Idaho Operations Office	33,375[a]	32,235	31,103	-1,132	-3.5%
Full Time Equivalents	210	203	197	-6	-3.0%
Oak Ridge Operations Office					
Salaries and Benefits	1,661	1,729	1,800	+71	+4.1%
Travel	49	50	51	+1	+2.0%
Support Services	73	58	53	-5	-8.6%
Other Related Expenses	113	120	128	+8	+6.7%
Total, Oak Ridge Operations Office	1,896	1,957	2,032	+75	+3.8%
Full Time Equivalents	14	14	14	+0	+0.0%
Headquarters					
Salaries and Benefits	17,507	19,728	21,081	+1,353	+6.9%
Travel	901	1,117	1,141	+24	+2.2%
Support Services	2,955	1,772	1,800	+28	+1.6%
Other Related Expenses	3,364	3,226	3,952	+726	+22.5%
Total, Headquarters	24,727	25,843	27,974	+2,131	+8.2%
Full Time Equivalents	142	146	151	+5	+3.4%
Total Program Direction					
Salaries and Benefits	45,088	45,826	46,673	+847	+1.8%
Travel	2,011	2,167	2,167	+0	+0.0%
Support Services	3,953	2,700	2,700	+0	+0.0%
Other Related Expenses	8,946	9,342	9,569	+227	+2.4%
Total, Program Direction, Energy Supply and Other Defense Activities	59,998	60,035	61,109	+1,074	+1.8%
Full Time Equivalents	366	363	362	-1	+0.3%

[a] For comparability purposes, funding for 6 FTEs at the Chicago and 1 FTE at the Oakland Operations Offices have been included in the Idaho Operations Office.

Mission

Program Direction provides the Federal staffing resources and associated costs required to provide overall direction and execution of the Office of Nuclear Energy, Science and Technology (NE). NE promotes secure, competitive, and environmentally responsible nuclear technologies to serve the present and future energy needs of the country. NE carries out this mission in several ways. As the central organization with the Federal Government's core expertise in nuclear technology, NE directs the Nation's investment in nuclear science and technology by sponsoring research at the national laboratories, U.S. universities, and private industry. Through its support of innovative, higher risk science and by helping to preserve the national research and development infrastructure, NE works to advance the responsible use of nuclear technology. NE also manages the safe operation and maintenance of critical nuclear infrastructure and provides nuclear technology goods and services to industry and government.

In addition to our appropriated funds, NE also manages over $230 million dollars annually in work for others and reimbursable funding. For example, NE manages over $110 million annually from the National Aeronautics and Space Administration and the Department of Defense for the development of advanced radioisotope power systems for space exploration and national security missions. In addition, NE manages the High Flux Isotope Reactor for the Office of Science.

NE is one of the most programmatically diverse organizations in the Department of Energy (DOE) and is faced with critical human capital challenges to pursuing its mission. Extensive downsizing several years ago resulted in numerous skill imbalances and particularly affected NE's retention of technical and scientific specialists. Wherever possible, employees were redeployed from lower priority programs to higher priority programs to meet mission needs. At this point, with expanding programs, limited resources, and skill imbalances, NE faces a variety of staffing challenges as it works to meet the requirements set for it by the President and the Secretary of Energy.

NE's human capital vision is to develop, recruit, and maintain a diverse organization of highly skilled professionals with the competency and motivation to contribute to the development and implementation of national energy policies and programs and help lead the Nation in achieving its nuclear technology goals for the twenty-first century.

In May 2003, NE assumed the role of Lead Program Secretarial Officer (LPSO) of the Idaho site. NE Headquarters and the Idaho Operations Office (NE-ID) reorganized in January 2005 to more effectively support the new nuclear energy missions and prepare for the oversight and management of the new contracts for the operation of the Idaho site. This new structure will carry out all programmatic, project, and landlord responsibilities assigned to NE now and in the future, both as LPSO and Contracting Officer for DOE's operations in Idaho, and as responsible PSO for programs, projects, facilities, and operations at other DOE sites. In addition, NE is aggressively addressing the mismatch between the growth in its national responsibilities and the decline in its skilled personnel. The Office of Nuclear Energy, Science and Technology Workforce Plan was updated in December 2004 to reflect mission changes and skills imbalances. Like the rest of the Federal Government, NE is planning for workforce changes that are engendered by an aging workforce. The average age of the NE workforce is 48 years, just slightly higher than the 47.5 year average age of the Federal workforce overall. Out of the current workforce, over one-third of the workforce will be eligible to retire within five years. Over the past

several years, NE has been trying to address the issue of an aging workforce through the recruitment of entry-level engineering, scientific, and administrative positions. Continuation of this effort is essential. The NE Workforce Plan indicates that, especially in the area of program and project management, and mission-critical positions (engineers and scientists), NE has a skills mix problem that must be addressed in the near term, as well as a need to increase staffing. In accordance with the NE Workforce Plan, NE plans a moderate increase in the Headquarters workforce over the next five years. The required staffing level is restrained because NE expects to continue its successful practice of aggressive matrix management and assuring the fullest possible utilization of staff resources. The proposed actions from the NE Workforce Plan plus NE's evolving mission create small, additional requirements for Program Direction funds. However, as in the past, NE's Program Direction budget is developed to cover special programs and circumstances such as A-76/competitive outsourcing; special incentive programs to retain necessary/essential skills; succession planning; train and/or retrain; and participate in special employment programs.

OMB allocated funds to ask the National Academy of Sciences to undertake a comprehensive, independent evaluation of the nuclear energy program's goals, plans, and to validate the process of establishing program priorities and oversight (including the method for determining the relative distribution of budgetary resources). The evaluation will result in a comprehensive and detailed set of policy and research recommendations and associated priorities (including performance targets and metrics) for an integrated agenda of research activities that can best advance NE's fundamental mission of securing nuclear energy as a viable, long-term commercial energy option to provide diversity in energy supply. An interim evaluation will be completed in time to inform NE's 2008 budget planning, with a final report completed before May 2006.

Detailed Justification

(dollars in thousands)

	FY 2004	FY 2005	FY 2006
Salaries and Benefits	**45,088**	**45,826**	**46,673**

NE Headquarters has retrained and redeployed staff to reduce dependence on contractors; and continuously redirected and realigned staff to accomplish program goals efficiently and effectively. However, NE's expanding role in the Department to support the *National Energy Policy* and to improve the proliferation-resistance of civilian nuclear energy systems will require additional staff. In addition, staff will be needed to assure the safe operation of the Department's various reactor facilities and provide adequate Federal oversight of essential programs. NE believes that it is essential to hire not only senior engineers and project managers for new and changing programs, but also to recruit junior staff for succession planning purposes; efforts to hire additional junior staff are continuing. NE Headquarters currently has a staff of 129. As nearly one-third of the staff will be eligible to retire within five years, it is essential that program direction resources are available to compete for needed skills. In addition to the Headquarters staff, NE also supports one employee who serves on the staff of the U.S. mission to the Organization for Economic Cooperation and Development; and field employees in two locations: the Idaho Operations Office (197), and Oak Ridge Operations Office (14). Additionally, in support of the

(dollars in thousands)

FY 2004	FY 2005	FY 2006

Department's efforts to consolidate information technology activities, one NE employee was permanently reassigned to the Office of the Chief Information Officer. NE agreed to continue funding for this position/employee through FY 2005. Also, in FY 2006 NE will assume responsibility for two FTEs transferred from the Office of Defense Nuclear Nonproliferation in support of the International Nuclear Safety activities.

Travel **2,011** **2,167** **2,167**

Travel includes funding for transportation of Headquarters and operations office personnel associated with NE programs, their per diem allowances while in authorized travel status, and other expenses incidental to travel.

Support Services **3,953** **2,700** **2,700**

Support Services includes funding for technical and management support services provided to NE Headquarters and Operations Office employees. NE requires its senior technical managers to be Federal employees with significant experience necessary to accomplish program objectives. NE does not rely on support service contractors to manage NE programs in place of Federal staff. To reduce support services costs, NE has retrained and redeployed staff to reduce dependence on contractors while meeting growing needs in programs such as Generation IV Nuclear Energy Systems Initiative and Nuclear Hydrogen Initiative. In this manner, NE has minimized support service costs over the last five years.

Other Related Expenses **8,946** **9,342** **9,569**

The major expenditure in the other related expenses category is $2,232,000 million in FY 2006 and is earmarked for the Headquarters Working Capital Fund (WFC). The Department's Office of Management, Budget, and Evaluation established a WCF to provide funding for mandatory administrative costs, such as building occupancy and telephone services, copying, printing and graphics, networking, desktop support, procurement management, payroll and personnel, corporate training services, and project management career development program. The Other Related Expense category also includes support for the Nuclear Energy Research Advisory Committee and funding for the National Academy of Sciences to undertake a comprehensive, independent evaluation of NE's research programs, including their relationship to the Idaho Facilities Management program.

Also included in other expenses are costs associated with the one employee who serves on the staff of the Organization for Economic Cooperation and Development such as housing, training, office communications, supplies, miscellaneous expenses and International Cooperative Administrative Support Services (ICASS).

Total, Program Direction **59,998** **60,035** **61,109**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Salaries and Benefits	
▪ The increase of $847,000 is the net of an additional $750,000 for new hires at Headquarters to manage expanding research and development programs, such as the Nuclear Hydrogen Initiative and Generation IV Nuclear Energy Systems Initiative to support the Department's nuclear non-proliferation objectives, while simultaneously preparing for a significant number of retirements over the coming five years; an additional $893,000 for a 2.5 percent escalation in accordance with established guidelines and funds for promotions and within-grade salary increases; and a decrease of $796,000 for a reduction of 6 field FTEs at Idaho.	+847
Other Related Expenses	
▪ The increase of $227,000 in other related expenses is primarily due to an increase of $1,000,000 in funding for the National Academy of Sciences to undertake a comprehensive, independent evaluation of NE's research programs; an increase of $121,000 for utilities, training, supplies and materials, and communications; offset by a reduction of $889,000 at Idaho for completing the purchase of telecommunications equipment in FY 2005, and reduced medical expense and mailroom services.	+227
Total Funding Change, Program Direction	**+1,074**

Support Services by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Technical Support					
System Definition	25	0	0	+0.0	+0.0%
System Review and Reliability Analyses	58	150	150	+0.0	+0.0%
Trade-off Analyses	145	138	138	+0.0	+0.0%
Economic and Environmental Analyses	230	135	135	+0.0	+0.0%
Test and Evaluation	50	50	50	+0.0	+0.0%
Surveys or Reviews of Technical Operations	300	0	0	+0.0	+0.0%
Total, Technical Support	808	473	473	+0.0	+0.0%
Management, Support					
Automated Data Processing	1,632	1,540	1,540	+0.0	+0.0%
Preparation of Program Plans	71	37	37	+0.0	+0.0%
Training and Education	425	0	0	+0.0	+0.0%
Reports and Analyses Management and General Administrative Services	1,017	650	650	+0.0	+0.0%
Total, Management Support	3,145	2,227	2,227	+0.0	+0.0%
Total, Support Services	3,953	2,700	2,700	+0.0	+0.0%

Other Related Expenses by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Other Related Expenses					
Working Capital Fund	2,068	2,237	2,232	-5	-0.2%
Advisory and Assistance Services	400	200	1,200	+1,000	+500.0%
Operations and Maintenance of Equip	4,148	4,240	3,556	-684	-16.1%
Printing and Reproduction	33	33	33	+0	+0.0%
Training	304	316	331	+15	+4.8%
Rent and Utilities	963	1,217	1,225	+8	+0.6%
Communications	541	433	528	+95	+21.9%
Supplies and Materials	400	447	450	+3	+0.7%
Other Services	89	219	14	-205	-93.6%
Total, Other Related Expenses	8,946	9,342	9,569	+227	+2.4%

Defense Related Administrative Support

Funding Schedule by Activity

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Defense Related Administrative Support	86,168	91,700[a]	87,575	-4,125	-4.5%

Description

From FY 1999 through 2005, funding has been provided within the Other Defense Activities appropriation to offset funding within the Departmental Administration appropriation. This offset addresses the significant amount of administrative support activities performed within the Departmental Administration appropriation that are of direct benefit to the Department's defense related programs.

Per direction provided in the FY 2004 Energy Water and Development conference report, the FY 2006 budget request reflects a proportional contribution from Other Defense Activities for Departmental Administration costs. This budget offsets Departmental Administration administrative work that supports the following appropriations: Defense Site Acceleration Completion, Defense Environmental Services, Defense Nuclear Waste Disposal, and Other Defense Activities. These functions do not duplicate services provided within the Office of the Administrator for the National Nuclear Security Administrative program.

Benefits

The services provided by the offices within Departmental Administration are done so without distinction between defense and non-defense related activities and benefit all headquarters organizations proportionally. These activities include processing personnel actions, building maintenance and operation, payroll and general accounting services, budgeting and funds execution, procurement, project management, information management, legal services, life-cycle asset management, workforce diversity, minority economic impact, policy, international affairs, Congressional and intergovernmental liaison, public affairs, and management of the Working Capital Fund.

[a] Reflects the .80% rescission in FY 2005.

Detailed Justification

	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006
Defense Related Administrative Support.....	**86,168**	**91,700**	**87,575**

The funding request offsets the following expenses within the Departmental Administration Appropriation Account:

- Salaries and benefits include wages, overtime pay, cash incentive awards, lump sum leave payments and other performance awards for about 300 FTEs in areas such as human resources, budget, financial accounting, logistics, national and international energy policy analysis, environmental policy, project management, information management, legal, contract management, property management, congressional and intergovernmental liaison and public and media outreach.

- Other Related Expenses includes funding for employee training and development and funding to support the Working Capital Fund for rental space, telecommunications, utilities and miscellaneous charges, printing and reproduction, other services, operating and maintenance of equipment, purchase of goods and services through government accounts supplies and materials and equipment.

- Support Services finances technical and management support services. The areas of support include information technology support, project control and performance, facilities and infrastructure, strategic planning, independent financial auditing, automated data processing, project management evaluations, delivery of training, operation of the Headquarters technical and law libraries, database maintenance, financial system operations and minimal technical financial support.

- Program Support funding includes a proportionate share of the I-MANAGE system to design and implement a new, integrated and user-friendly financial management system for the Department. The system will help the Department fulfill its fiduciary responsibilities and meet both internal management and external reporting requirements. The new system will replace and extend the functionality of the current legacy systems.

- Program support also supports the Department's cyber security program which provides consistent principles and requirements for Cyber Security that the Departmental organizations can implement for the protection of classified and unclassified information, as required by National laws and policies.

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Defense Related Administrative Support	
The FY 2004 Energy Water and Development conference report directed the Department to reflect a proportional contribution from Other Defense Activities for Departmental Administration costs. The FY 2006 funding represents 31%, which is the approximate level of related defense activities in the FY 2006 request (not including NNSA) of the Departmental Administration appropriation's administrative costs……	-4,125
**Total Funding Change, Defense Related Administrative Support…….……	**-4,125**

Other Defense Activities
Office of Hearings and Appeals

Overview

Appropriation Summary by Program

(dollars in thousands)

	FY 2004 Comparable Appropriation	FY 2005 Original Appropriation	FY 2005 Adjustments	FY 2005 Comparable Appropriation	FY 2006 Request
Other Defense Activities					
Hearings and Appeals.....	3,775[a]	4,318	-35	4,283[b]	4,353

Preface

The Department of Energy operates and supervises a great number of programs to further its National Defense and the Environmental Strategic Goals. Many of these programs seek to balance the interests of different and sometimes competing stakeholders. The Office of Hearings and Appeals (OHA) provides legal adjudicatory services for the Department's programs so that these conflicting interests may be decided in a fair, impartial and efficient manner.

Within the Other Defense Activities Appropriation, OHA operates with three principal legal staffs – the Office of Legal Analysis, the Office of Financial Analysis and the Office of Economic Analysis.

This Overview will describe Strategic Context, Mission, Benefits, and Significant Program Shifts. These items together put this Appropriation in perspective.

Strategic Context

Following publication of the Administration's National Energy Policy, the Department developed a Strategic Plan that defines the mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. OHA performs critical functions which directly support the mission of the Department. These functions include ensuring, through its role in conducting hearings in Personnel Security cases, that only trustworthy employees are allowed access to classified information or controlled nuclear materials. Likewise, in its supervision of Whistleblower hearings, OHA insures that the Department

[a] Includes rescission of 0.59% for FY2004.
[b] Includes rescission of 0.80% for FY2005.

has a workplace where employee concerns about health and safety, fraud, waste, abuse or mismanagement may be freely expressed to DOE or contractor management without fear of retaliation. OHA's role in deciding Appeals and Applications for Exceptions supports the Department in ensuring that relevant regulations and statutes are applied properly and without undue disruption to the private sector. This directly benefits the public and reduces the Department's litigation costs in Federal courts.

Mission

OHA's mission is to conduct fair and efficient hearings and to issue decisions of the Department with respect to any adjudicative proceedings that the Secretary may delegate. OHA's jurisdiction includes, for example, security clearance hearings, hearings of complaints filed under the DOE Contractor Employee Protection Program as well as appeals requesting review of any determination reached by any official within the Department under OHA's jurisdiction.

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission of the Department. OHA performs critical functions which directly support the mission. These functions include ensuring, through its role in conducting hearings in Personnel Security cases, that only trustworthy employees are allowed access to classified information or controlled nuclear materials. Likewise, in its supervision of Whistleblower hearings, OHA insures that the Department has a workplace where employee concerns about health and safety, fraud, waste, abuse or mismanagement may be freely expressed to DOE or contractor management without fear of retaliation. OHA's role in deciding Appeals and Applications for Exceptions supports the Department in ensuring that relevant regulations and statutes are applied properly and without undue disruption to the private sector. This directly benefits the public and reduces the Department's litigation costs in Federal courts.

Benefits

In its adjudicatory mission for the Department, OHA offers a fair, impartial and customer-friendly process in which firms and individuals may seek review of agency actions. OHA is also charged with conducting hearings in Personnel Security cases. OHA issues timely, high quality decisions in cases involving DOE personnel security clearance adjudications that ensure only trustworthy personnel are allowed access to classified information and special nuclear materials. Thus, OHA directly supports the Department's Defense Strategic Goal of helping ensure the security of the nuclear weapons stockpile.

OHA also conducts investigations and hearings concerning whistleblower complaints filed by DOE contractor employees and for issuing final agency decisions resolving them. In these cases, OHA strives to balance the public interest in promoting a workplace where concerns may be freely expressed without retaliation against the need of DOE contractors to manage their resources efficiently. This is especially important with regard to the Department's Environmental Strategic Goal to ensure that cleanup of the environmental legacy of the Cold War is effectively performed.

OHA also analyzes and decides appeals requesting review of any determination reached by any other official within the Department under the jurisdiction of the Secretary, including initial determinations under the Freedom of Information Act, the Privacy Act, the payments-equal-to-taxes (PETT) provisions of the Nuclear Waste Policy Act of 1982, the special assessment provisions for the Uranium Enrichment Decontamination and Decommissioning Fund under the Energy Policy Act of 1992, and the reimbursement of costs of remedial actions at active uranium or thorium processing sites under the Energy Policy Act of 1992. OHA is responsible for deciding Applications for Exception from the generally applicable requirements of a rule, regulation or order of the Department. The Office also analyzes Petitions for Special Redress seeking "extraordinary relief" apart from or in addition to any other remedy provided in the Department's enabling statutes. By ensuring that the Department properly applies relevant regulations and statutes to affected parties, OHA directly benefits the public and saves the Department litigation expenses in federal courts.

Under proposed regulations, pursuant to the Bob Stump National Defense Authorization Act for FY2003, OHA has been designated as the appeal authority for contractors who have been found to violate the contractor's DOE-approved worker safety and health program. If promulgated, OHA will further contribute to the Department's Environmental Strategic Goal.

Program Direction

Funding Profile by Category

	(dollars in thousands/whole FTEs)				
	FY 2004	FY 2005	FY 2006	$ Change	% Change
Headquarters					
Salaries and Benefits	3,020	3,193	3,236	+43	+1.3%
Travel	80	90	90	0	0.0%
Support Services	20	100	100	0	0.0%
Other Related Expenses	655	900	927	+27	+3.0%
Total, Program Direction	3,775	4,283	4,353	+70	+1.6%
Total, Full Time Equivalents	21	23	23	0	0.0%

Mission

OHA's mission is to conduct fair and efficient hearings and to issue decisions of the Department with respect to any adjudicative proceedings which the Secretary may delegate. OHA's jurisdiction includes, for example, security clearance hearings, hearings of complaints filed under the DOE Contractor Employee Protection Program as well as appeals requesting review of any determination reached by any other official within the Department under OHA's jurisdiction.

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. The Office of Hearings and Appeals performs critical functions which directly support the mission of the Department. These functions include ensuring, through its role in conducting hearings in Personnel Security cases, that only trustworthy employees are allowed access to classified information or controlled nuclear materials. Likewise, in its supervision of Whistleblower hearings, the OHA insures that the Department has a workplace where employee concerns about health and safety, fraud, waste, abuse or mismanagement may be freely expressed to DOE or contractor management without fear of retaliation. OHA's role in deciding Appeals and Applications for Exceptions supports the Department in ensuring that relevant regulations and statutes are applied properly and without undue disruption to the private sector. This directly benefits the public and reduces the Department's litigation costs in Federal courts.

Detailed Justification

	(dollars in thousands)		
	FY 2004	FY 2005	FY 2006
Salaries and Benefits …….....	**3,020**	**3,193**	**3,236**

Funding supports 23 FTEs in FY 2006 including costs for pay raises and promotions. OHA staff provides hearing officers and decisions in a wide variety of matters, such as security clearance and whistleblower cases.

Travel ….....	**80**	**90**	**90**

For transportation to DOE field sites to conduct hearings on security clearance and whistleblower cases.

Support Services …….....	**20**	**100**	**100**

Provide funding for contractor support of OHA's computer information system and maintaining OHA's internet presence, including rapid public access to the office's published decisions. OHA utilizes computer information systems to improve management and promote efficient use of resources, and it promptly (within 24 hours) publishes OHA decisions and findings on its publicly accessible, customer-friendly and increasingly visited website. Also provides funding for technical support for Departmental E-Government initiatives.

Other Related Expenses ….....	**655**	**900**	**927**

This category includes funding for EXCITE, employee training and charges by the Working Capital Fund for base services: rent, utilities, telephone, supplies, postage, building operations, photocopies, STARS, telecommunications, printing (including publication of federal register notices, and printing of decisions). OHA pays for certain services directly, including timesharing (Westlaw) and purchases of computer equipment and software.

Total, Program Direction….…….....……..	**3,775**	**4,283**	**4,353**

Explanation of Funding Changes

	FY 2006 vs. FY 2005 ($000)
Salaries and Benefits	
▪ The increase is the result of the full effect of the FY2005 pay raise and the partial effect of the FY 2006 pay raise, promotions, performance awards and within grade increases...……....	+43
Other Related Expenses	
▪ Reflects an increase in the purchase of goods and services from Governmental accounts (+$133,000) which is offset by a decrease in Working Capital Fund expenses (-$106,000)……...	+27
Total Funding Change, Program Direction……	+70

Support Services by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Support Services					
Management and Professional Support Services……	20	100	100	0	0.0%
Total, Support Services……	20	100	100	0	0.0%

Other Related Expenses by Category

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Other Related Expenses					
Working Capital Fund……	635	880	774	-106	-12.0%
Printing and Reproduction….	20	20	20	0	0.0%
Purchases of goods and services from Government accounts…	0	0	133	+133	+133.0%
Total, Other Related Expenses…	655	900	927	+27	+3.0%

Safeguards and Security Crosscut

Safeguards and Security Crosscut

Safeguards and Security

Program Mission

The mission of the Safeguards and Security (S&S) program at each Department of Energy (DOE) site is to protect DOE interests from theft, diversion, sabotage, espionage, unauthorized access, compromise, and other hostile acts which may cause unacceptable adverse impacts on national security, program continuity, the health and safety of employees, the public or the environment.

This section of the budget provides summary budget estimates of the Department's S&S programs. Details of the individual S&S programs and their budgets are found in the following program budget justifications:

- National Nuclear Security Administration
- Environmental Management
- Security and Safety Performance Assurance
- Information Management
- Science
- Nuclear Energy

Program Overview

The budget for the Department's direct funded S&S programs is organized to ensure consistency in program and budget execution and ensure adequate management, direction, tracking and monitoring of security costs throughout the Department. Each S&S program budget provides high visibility for S&S issues and helps the Department prioritize functions for effective and efficient S&S program implementation, including performance. Furthermore, the structure of the S&S budgets ensures consistency in budget execution across diverse programs, principally the National Nuclear Security Administration, Environmental Management, Science, and Nuclear Energy. For these Field Security programs, the budget structure takes the form of the following seven program elements:

1. Protective Forces: Provides for the protection of special nuclear material, information, employees, and government property from theft, diversion, sabotage, and malicious destruction.

2. Security Systems: Addresses access control and interior/exterior intrusion detection systems.

3. Information Security: Ensures that individuals protect classified matter and sensitive unclassified matter, and establishes protection systems that require degrees of protection for each classification level.

4. Cyber Security: Assures effective and efficient protection of computer and technical resources.

5. Personnel Security: Supports activities associated with the access authorization program.

6. Material Control and Accountability: Provides assurance that the nuclear materials used and/or stored at DOE facilities are properly controlled and accounted for at all times.

7. Program Management: Assures a framework for efficient and effective security operations.

Changes in the Composition of the Safeguards and Security Crosscut

The composition of the S&S crosscut is modified as security-related DOE organizations are changed to more effectively address the security concerns that confront the Department.

Funding by Site

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$ Change	% Change
Field Security					
Science	62,328	72,773	74,317	+1,544	+2.1%
National Nuclear Security Administration	620,861	743,929	732,478	-11,451	-1.5%
Environmental Management	291,124	262,942	287,223	+24,281	+9.2%
Nuclear Energy	56,343	57,662	75,008	+17,346	+30.1%
Subtotal, Field Security	1,030,656	1,137,306	1,169,026	+31,720	+2.8%
Headquarters Security					
Security & Safety Performance Assurance (SSA)					
Nuclear Safeguards and Security	179,306	183,845	176,878	-6,967	-3.9%
Security Investigations	54,234	44,561	48,725	+4,164	+9.3%
Program Direction	47,010	53,221	50,228	-2,993	-5.6%
Subtotal, SSA	280,550	281,627	275,831	-5,796	-2.1%
Information Management (CIO Cyber)	26,315	24,733	32,000	+7,267	+29.4%
Physical Security (NNSA)	8,000	8,000	8,000	0	0.0%
Subtotal, Headquarters Security	314,865	314,360	315,831	+12	0.0%
Subtotal, Safeguards and Security	1,345,521	1,451,666	1,484,857	+33,191	+2.3%
Security charge against reimbursable work	-37,586	-38,608	-40,608	-2,000	+5.2%
Total, Safeguards and Security	1,307,935	1,413,058	1,444,249	+31,191	+2.2%

Funding Profile

(dollars in thousands)

	FY 2004	FY 2005	FY 2006	$Change	%Change
Field Security					
Protective Forces/Transportation	566,248	576,365	587,692	+11,327	+2.0%
Security Systems	115,268	136,067	145,967	+9,900	+7.3%
Information Security	34,842	38,075	33,024	-5,051	-13.3%
Cyber Security	107,712	127,715	103,777	-23,938	-18.7%
Personnel Security	39,178	41,744	42,634	+890	+2.1%
Material Control and Accountability	52,446	44,438	45,604	+1,166	+2.6%
Program Management	111,301	136,194	169,328	+33,134	+24.3%
Construction (NNSA)	3,661	36,708	41,000	+4,292	+11.7%
Subtotal, Field Security	1,030,656	1,137,306	1,169,026	+31,720	+2.8%
Charge for Reimbursable Work	-37,586	-38,608	-40,608	-2,000	+5.2%
Subtotal, Field Security	993,070	1,098,698	1,128,418	+29,720	+2.7%
Headquarters Security					
Security & Safety Performance Assurance (SSA)					
Nuclear Safeguards and Security	179,306	183,845	176,878	-6,967	-3.8%
Security Investigations	54,234	44,561	48,725	+4,164	+9.3%
Program Direction	47,010	53,221	50,228	-2,993	-5.6%
Subtotal, SSA	198,326	281,627	275,831	-5,796	-2.1%
Information Management (CIO Cyber)	26,315	24,733	32,000	+7,267	+29.4%
Physical Security(NNSA)	8,000	8,000	8,000	0	0.0%
Subtotal, Headquarters	232,641	314,360	315,831	+1,471	+0.5%
Total Safeguards and Security	1,225,711	1,413,058	1,444,249	+31,191	+2.2%

Protective Forces

Mission

The mission of Protective Forces is to protect the Department's critical assets which include nuclear weapons in DOE custody, nuclear weapons components, special nuclear material (SNM), classified information and DOE facilities against a spectrum of threats, including terrorist activity, sabotage, espionage, theft, diversion, loss or unauthorized use. To accomplish this mission:

- Protective Forces programs throughout the complex provide for salaries, wages and benefits for personnel; proper management and supervision; training, and sufficient quantities of well maintained and logically deployed equipment and facilities to ensure effective performance of assigned functions and tasks under normal and emergency conditions. Program implementation ensures that personnel are trained and qualified to perform their responsibilities.

- Protective Forces programs perform critical functions including the conduct of access control and security response operations; the physical protection of SNM, classified matter and information, and government property; emergency response forces and tactical assistance during events as well as an on-scene security commander; posts and roving patrols; coordination with local law enforcement and protective force elements aimed at providing effective response to emergency situations; random inspections for prohibited articles; security alarm monitoring and dispatch services; the oversight of the collection and destruction of classified matter; and constant training and performance testing of the protective force to respond to various event scenarios.

- Protective Forces programs includes the training and maintenance of Special Response Team capability to provide resolution of security incidents that require effective and timely response with use of force options that exceed the capability of front line protective force personnel. This includes recapture and recovery operations involving the use of special weapons, systems and tactics to effect recovery of SNM.

Funding Schedule

(dollars in thousands)

Protective Forces	FY 2004	FY 2005	FY 2006	$ Change	% Change
Science……	27,235	27,893	29,007	+1,114	+4.0%
National Nuclear Security Administration…...	350,381	370,980	372,702	+1,722	+0.5%
Environmental Management…….……..	157,252	144,219	150,485	+6,266	+4.3%
Nuclear Energy……..……..	31,380	33,273	35,498	+2,225	+6.7%
Total, Protective Forces …….	566,248	576,365	587,692	+11,327	+2.0%

Security Systems

Mission

The mission of Security Systems is the physical protection of special nuclear material (SNM) and vital equipment, sensitive information, Departmental property and facilities. Included are buildings, fences, barriers, lighting, sensors, surveillance devices, entry control devices, access control systems, detection systems (intrusion, SNM, metal and explosives), power supply systems and other real property and hardware designed for, or affecting security. This hardware and equipment is operated and used to support the protection of DOE property and critical National Security assets.

Security Systems programs support DOE-wide efforts required to conduct performance assurance testing as a part of the self-assessment program. These programs also ensure that security intrusion detection (alarm) systems are operational and functioning in accordance with applicable DOE Orders. Security System programs include two essential subprograms: (1) a barriers/secure storage/lock program to restrict, limit, delay or deny entry into a designated area; and (2), an entry control/access program that provides positive identification of personnel requiring access to facilities and initial access to facilities in general, ensuring that persons entering/leaving facilities are authorized, and do not introduce prohibited articles into or remove Government property from Departmental facilities.

Estimates are provided for all access control administrative activity involving production, accountability and destruction of access authorization badges and firearms credentials. Estimates are also provided for vital systems components and tamper-safe oversight is provided by monitoring and responding to alarms, determining access and securing all alarmed structures. In addition, this element provides for handling all radio communications for the protection of the facilities.

Program implementation ensures that security system personnel are trained and qualified to perform their responsibilities.

Funding Schedule

(dollars in thousands)

Security Systems	FY 2004	FY 2005	FY 2006	$ Change	% Change
Science……..…….….	5,731	10,599	11,636	+1,037	+9.8%
National Nuclear Security Administration….....	56,195	72,193	54,696	-17,497	-24.2%
Environmental Management…….….....	41,944	42,960	55,433	+12,473	+29.0%
Nuclear Energy……..……..…….	11,398	10,315	24,202	+13,887	+134.6%
Total, Security Systems …….……	115,268	136,067	145,967	+9,900	+7.3%

Information Security

Mission

The mission of Information Security is to ensure that material and documents that may contain sensitive and classified information are accurately and consistently identified, properly reviewed for content, appropriately marked and protected from unauthorized disclosure, and ultimately destroyed in an approved manner.

Information Security programs provides for plans, policies, procedures and training to ensure that all employees are aware of the requirements for the identification, review, classification, declassification, marking, protection, reproduction, transmission, proper disposal of sensitive information and classified material, incident reporting, and inquiry conduct. Technical surveillance and operations security considerations are used to preclude unauthorized and inadvertent compromise. Program implementation plans ensure that personnel are trained and qualified to perform their responsibilities.

Funding Schedule

(dollars in thousands)

Information Security	FY 2004	FY 2005	FY 2006	$ Change	% Change
Science ……..…..…..	2,601	2,983	2,752	-231	-7.7%
National Nuclear Security Administration….....	21,335	25,477	21,398	-4,079	-16.0%
Environmental Management…….….....	9,112	7,760	6,942	-818	-10.5%
Nuclear Energy……..……..…….	1,794	1,855	1,932	+77	+4.2%
Total, Information Security……...…..	34,842	38,075	33,024	-5,051	-13.3%

Cyber Security

Mission

The mission of Cyber Security is to ensure that sensitive and classified information that is electronically processed, transmitted, or stored, is properly identified and protected. Cyber Security programs also ensure that electronic systems are appropriately reviewed, marked and protected. The programs plan, document, and test classified automated information systems (AIS), communications security (COMSEC), TEMPEST; and maintain an appropriate level of infrastructure that ensures confidentiality, integrity and availability, as well as an unclassified AIS program. Included are appropriate plans, policies and procedures, assessments, tests, monitoring and self-assessments, certifications, user and administrator training/awareness, and incident reporting. Also included are appropriate subprograms developed to ensure that personnel are trained and qualified to perform their responsibilities.

Funding Schedule

(dollars in thousands)

Cyber Security	FY 2004	FY 2005	FY 2006	$ Change	% Change
Science	13,283	15,638	15,840	+202	+1.3%
National Nuclear Security Administration	79,740	99,248	77,827	-21,421	-21.6%
Environmental Management	9,495	7,406	4,695	-2,711	-36.6%
Nuclear Energy	5,194	5,423	5,415	-8	-0.1%
Total, Cyber Security	107,712	127,715	103,777	-23,938	-18.7%

Personnel Security

Mission

The mission of Personnel Security is to support the access authorization program (excluding Security Investigations), and ensure security sensitivity through security briefings such as the initial, refresher and termination briefings, re-orientations, computer based training, special workshops and classes, publications, closed circuit television programs, signs, posters and special event days. Support for the access authorization program includes: (1) human reliability program, adjudications, screening and analysis of personnel security cases for determining eligibility for access authorizations, administrative reviews, and handling of Freedom of Information and Privacy Act requests related to security access authorizations; (2) security awareness and education; and (3) operating and maintenance estimates associated with classified/unclassified visits and assignments by foreign nationals; and (4) ensuring that personnel are trained and qualified to perform their responsibilities;.

Funding Schedule

(dollars in thousands)

Personnel Security	FY 2004	FY 2005	FY 2006	$ Change	% Change
Science……..….	5,173	5,900	5,670	-230	-3.9%
National Nuclear Security Administration……..	22,124	25,555	27,041	+1,486	+5.8%
Environmental Management…….……..	10,190	8,554	8,070	-484	-5.7%
Nuclear Energy…….……....	1,691	1,735	1,853	+118	+6.8%
Total, Personnel Security …….	39,178	41,744	42,634	+890	+2.1%

Material Control and Accountability

Mission

The mission of Material Control and Accountability (MC&A) is to provide assurance that nuclear materials are properly controlled and accounted for at all times. MC&A provides evidence that all nuclear materials are accounted for appropriately and that theft, diversion, or operational loss has not occurred. MC&A also supports weapons production, nuclear nonproliferation, nuclear materials operations, facility closure, and nuclear critical safety by determining and documenting the amounts of nuclear materials in weapons and packaged items. MC&A administration includes the following: (1) assessing the levels of protection, control and accounting required for the types and quantities of materials at each facility; (2) documenting facility plans for nuclear materials control and accounting; (3) assigning authorities and responsibilities for MC&A functions; (4) ensuring that facility MC&A personnel are trained and qualified to perform their responsibilities; (5) establishing programs to report occurrences such as nuclear material theft, the loss of control or inability to account for nuclear materials, or evidence of malevolent acts; (6) conducting performance testing of required program elements; and (7) establishing facility programs to conduct and document self assessments of their operations and MC&A programs.

Funding Schedule

(dollars in thousands)

Material Control and Accountability	FY 2004	FY 2005	FY 2006	$ Change	%Change
Science	2,116	2,391	2,365	-26	-1.1%
National Nuclear Security Administration	25,875	27,018	26,889	-129	-0.5%
Environmental Management	21,529	11,989	12,879	+890	+7.4%
Nuclear Energy	2,926	3,040	3,471	+431	+14.2%
Total, Material Control and Accountability	52,446	44,438	45,604	+1,166	+2.6%

Program Management

Mission

The mission of Program Management is to develop a framework for efficient and effective security operations. The goals and objectives of the Office of Security and Safety Performance Assurance are implemented Department wide. This includes the development and updating of S&S plans, based upon the 2004 Design Basis Threat Policy, conducting site vulnerability assessments to determine if assets are at risk, modeling to ensure the plans and operations meet mission objectives, identifying assets that need protection, developing and updating local threat assessments, registering safeguards and security interests, conducting and documenting self-assessments and initial, special, periodic and termination surveys, participating in the S&S quality panels and workshops covering all S&S disciplines. In addition, these programs ensure that plans are developed, approved and revised in accordance with requirements contained in DOE Directives. Professional and technical training is administered to ensure that personnel are trained and qualified to perform their S&S responsibilities in an integrated manner with consideration for safety requirements as they may impact security.

The programs develop S&S plans or other applicable security plans and implement S&S requirements, conduct self-assessments and surveys to determine whether S&S requirements have been implemented, respond to national and local threats and perform a vulnerability analysis that measures the risk of S&S assets. Program Management includes participation in the quality panel process which raises issues from the field to the headquarters managers and ensure that staff are properly educated with respect to security matters.

Funding Schedule

(dollars in thousands)

Program Management	FY 2004	FY 2005	FY 2006	$ Change	% Change
Science ……..….	6,189	7,369	7,047	-322	-4.4%
National Nuclear Security Administration…..….....	61,550	86,750	110,925	+24,175	+27.9%
Environmental Management…….….	41,602	40,054	48,719	+8,665	+21.6%
Nuclear Energy …….……...…..	1,960	2,021	2,637	+616	+30.5%
Total, Program Management…….……	111,301	136,194	169,328	+33,134	+24.3%