Science and Technology

Program Mission

The Environmental Management (EM) cleanup effort is expensive, technologically complex, closely regulated, and relatively unique in the world. The EM Office of Science and Technology conducts a national program that provides the full range of resources and capabilities--from basic research through deployment and technical assistance at the sites. The Science and Technology program, working closely with EM sites, will work to reorient the EM program to focus on high priority needs and risk reduction goals by:

- focusing on high priority technical needs at closure sites
- identifying technology vulnerabilities;
- focusing on short and intermediate-term projects; and
- focusing on high risk, high payoff projects.

Significant Accomplishments and Program Shifts

Recently, the EM program completed a “top-to-bottom review” of the entire EM budget. Based on the outcome of this review, it was determined that a need existed to re-focus the Science and Technology program.

The EM mission requires focused and strong support in research and development and applied technology. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on core research and development functions to support intermediate and long-term needs for cleanup and closure. The Science and Technology program will also focus on vulnerabilities in baseline technologies that need to be assessed, and applied technologies provided to resolve those vulnerabilities. Alternatives to baseline technologies will be developed that can reduce programmatic risk, improve schedule, and reduce costs.

Major FY 2001 and FY 2002 planned accomplishments include:

In FY 2002 demonstrate a stainless steel corrosion probe for the Idaho National Engineering and Environmental Laboratory. Demonstrate and deploy a regenerable high-efficiency particulate air filter for tank ventilation at Savannah River. Development of these technologies will reduce costs, worker safety risks and health risks during tank farm and process operations.

Deploy in FY 2001 and FY 2002, remote technology enhancements for tank farm valve pit operations to reduce safety risks and support waste treatment at Hanford.

Continue in FY 2001 and FY 2002 technology development efforts and monitoring techniques, in cooperation with the Environmental Protection Agency, to improve landfill caps, covers and barriers to prevent the migration of wastes from DOE sites. The Environmental Protection Agency is

incorporating the data from these successful demonstrations into national landfill cover design guidance.

- # Demonstrate in FY 2001, one long-term stewardship technology at Fernald to enable remote automated monitoring of the integrity of the leachate collection system of the onsite disposal facility.
- # Deploy, in FY 2001, improved arid landfill cover design and monitoring system at Nevada. Reliable regulator approved capping of closed landfills will be essential in meeting site closure dates.
- # In FY 2002, continue deployment of an advanced tensiometer at the Hanford tank farm to accurately measure the amount and direction of ground water flow to determine contaminant migration from tanks.
- # Complete, in FY 2002, demonstration of a technology that reduces the number of confinement layers in transuranic waste drums allowing more waste to be placed in each drum without first treating or repackaging, thus reducing disposal costs and risk to workers safety.
- # In FY 2001, deploy the Standard Waste Box Counter at Rocky Flats to assay and characterize transuranic-contaminated equipment to the Waste Isolation Pilot Plant waste acceptance criteria standards.
- # In FY 2001, deploy laser cutting system at Los Alamos National Laboratory to size reduce transuranic waste to fit into Waste Isolation Pilot Plant certified containers; technology may also be deployed at Rocky Flats Environmental Technology Site, the Nevada Test Site and at Hanford B-Cell in FY 2002 in conjunction with a remote work platform.
- # In FY 2001 and FY 2002, deploy centralized and in-situ remote/robotic systems and tooling for characterization, decontamination, size reduction and removal of contaminated facilities, gloveboxes and equipment at Rocky Flats. These improved cost-effective technologies will reduce worker safety and health risk and accelerate deactivation and decommissioning schedules, thereby ensuring Rocky Flats Environmental Technology Site closure milestones are met.
- # In FY 2002, continue research, development and integration of remote/robotic systems that will accommodate multi-tasking deactivation and decommissioning activities. Basic and applied research will be conducted through the University Research Robotic Program and in support of robotics and intelligent machines activities that will reduce or eliminate worker health and safety risk and increase worker production.
- # In FY 2001, install a prompt gamma measurement system at Rocky Flats to characterize plutonium bearing containers.
- # In FY 2001, deploy a vacuum transfer system at Fernald for repackaging enriched uranium to reduce human exposure and reduce health and safety risks.
- # In FY 2001, deploy Russian-based technologies to treat problematic solutions at Fernald.
- # In FY 2001, conduct and publish 11 worker health and safety assessments in conjunction with the Office of Science and Technology sponsored technology demonstrations.

In the course of identifying a path forward based on the results of the EM "Top-to-bottom" review, the Science and Technology program will strive to focus on important technologies that emphasize risk reduction and meet high priority needs at closure sites. Potential FY 2003 accomplishments include:

- Demonstrate remote canister decontamination technologies for glovebox or hotcell located at West Valley to support off site shipment of wastes and site closure milestones.
- Demonstrate size reduction and dismantlement technologies on failed vitrification equipment at Savannah River and West Valley to avoid costly storage of contaminated equipment.
- Complete, in FY 2003, demonstration of multiple real-time sensors and monitors for the Fernald Post Closure Monitoring Test Facility. This project will assist Ohio in meeting their closure milestones and also provide the testing data required to meet regulatory guidelines for other site closure plans.
- In FY 2003, demonstrate Long-Term Cover Guidance through installation of a cover at the Rocky Flats and evaluate Long-Term Cover performance degradation caused by plant root intrusion.
- Begin development of long-term performance assessment of waste cell covers for humid regions to support Savannah River, Oak Ridge, Chicago and Ohio needs.
- In FY 2003, continue support to closure sites through the Rocky Flats Initiative to reduce worker safety and health risks during dismantlement and disposal activities and the Mound Long-Term Stewardship Initiative to demonstrate and deploy safe and reliable systems for long-term surveillance and monitoring of buildings.
- In FY 2003, initiate Hot Cells Large Scale Demonstration and Deployment Project to demonstrate and deploy a suite of innovative technologies to safely and cost-effectively deactivate and decommission hot cells and associated equipment at West Valley and Columbus-West Jefferson sites.
- In FY 2003, design, develop, and demonstrate an automated materials processing and dry powder down-blending system for low enriched uranium materials at Fernald. Uranium oxides resulting from this system will be capable of being recycled in the nuclear fuel cycle, rather than being disposed as waste. This processing system is required for the off-site disposition of all uranium nuclear materials from Fernald in order to accelerate site closure.
- In FY 2003, analyze approaches to meet transportation standards for hydrogen materials. Gas generation in nuclear material containers is a major issue and is threatening the closure milestones at Rocky Flats and other sites and critical Defense Nuclear Facilities Safety Board milestones at Hanford, Savannah River and Rocky Flats.
- In FY 2003, deploy neutron moderation technology as a bulk moisture measurement technique for stabilized plutonium materials. If existing measurement instrumentation fails, Rocky Flats, Hanford and Savannah River will not meet closure and Defense Nuclear Facility Safety Board milestones. In addition, this technology deployment, if successful, will provide the technical basis for developing DOE standards to safely stabilize and move nuclear materials other than plutonium.

Funding Profile

(dollars in thousands)

	FY 2001 Comparable Appropriation	FY 2002 Original Appropriation	FY 2002 Adjustments	FY 2002 Comparable Appropriation	FY 2003 Request
Radioactive Tank Waste Remediation Focus Area	55,289	53,118	0	53,118	0
Subsurface Contaminants Focus Area	40,729	40,185	0	40,185	0
Transuranic and Mixed Waste Focus Area	31,870	28,239	0	28,239	0
Deactivation and Decommissioning Focus Area	27,105	29,509	0	29,509	0
Nuclear Materials Focus Area	7,954	10,186	0	10,186	0
Environmental Management Science Program	0 [a]	37,050 [a]	(37,050) [a]	0 [a]	0 [a]
Idaho Environmental Systems Research and Analysis	21,000	20,000	0	20,000	0
Technology Applications	19,431	21,510	0	21,510	0
Small Business Innovative Research Program (Technology Development)	0 [b]	1,985	0	1,985	0
Long-Term Stewardship	0 [c]	8000 [c]	(8,000) [c]	0 [c]	0 [c]
Closure Site Support and Alternative Approaches to Current High Risk/High Cost Baselines	0	0	0	0	92,000
Total, Science and Technology	203,378	249,782	(45,050)	204,732	92,000

Public Law Authorizations:

Public Law 102-579, “Waste Isolation Pilot Plant Land Withdrawal Act (1992)”

Public Law 107-66, “The Energy and Water Development Appropriations Act, 2002"

Public Law 95-91, “Department of Energy Organization Act (1997)”

Public Law 103-62, “Government Performance Results Act of 1993"

Public Law 107-107, “The National Defense Authorization Act for Fiscal Year 2002"

[a] The Environmental Management Science Program has been transferred to the Office of Science in FY 2003.

[b] Excludes $4,667,000 for Small Business Innovative Research Program assessment which was transferred to the Office of Science in the fourth quarter.

[c] The Long-Term Stewardship program has been shifted to the Defense Multi-Sites account in FY 2003.

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Albuquerque Operations Office					
Los Alamos National Laboratory (NM)	4,401	3,633	0	-3,633	>99.9%
Sandia National Laboratory (NM)	5,929	4,141	0	-4,141	>99.9%
Pantex (NM)	0	345	0	-345	>99.9%
Lovelace Biomedical and Environmental Research Institute (CO)	0	0	0	0	>99.9%
Mid-West Research Institute (CO)	0	0	0	0	>99.9%
Albuquerque Operations Office (NM)	3,222	1,105	0	-1,105	>99.9%
University Robotics Program (ALO)	4,350	4,647	0	-4,647	>99.9%
Total, Albuquerque Operations Office	17,902	13,871	0	-13,871	>99.9%
Carlsbad Area Office					
Carlsbad Area Office	150	200	0	-200	>99.9%
Chicago Operations Office					
Ames Laboratory (IA)	808	866	0	-866	>99.9%
Argonne National Laboratory (West) (ID)	2,389	871	0	-871	>99.9%
Brookhaven National Laboratory (NY)	349	1,127	0	-1,127	>99.9%
Chicago Operations Office (IL)	2,677	2,884	0	-2,884	>99.9%
Total, Chicago Operations Office	6,223	5,748	0	-5,748	>99.9%
Idaho Operations Office					
Idaho National Engineering and Environmental Laboratory (ID)	36,716	34,508	0	-34,508	>99.9%
Grand Junction Project Office (CO)	121	0	0	0	>99.9%
Idaho Operations Office (ID)	6,000	4,781	0	-4,781	>99.9%
Total, Idaho Operations Office	42,837	39,289	0	-39,289	>99.9%
National Energy Technology Laboratory (NETL)					
West Virginia	35,545	34,645	0	-34,645	>99.9%
University Programs (WV)	14,625	17,500	0	-17,500	>99.9%
Western Environmental Technology Office	6,764	5,000	0	-5,000	>99.9%
Total, National Energy Technology Laboratory (NETL)	56,934	57,145	0	-57,145	>99.9%
Nevada Operations Office					
Nevada Operations Office (NV)	3,123	5,151	0	-5,151	>99.9%
Oak Ridge Operations Office					

	(dollars in thousands)				
	FY 2001	FY 2002	FY 2003	$ Change	% Change
Oak Ridge Operations Office (TN)	16,898	11,657	0	-11,657	>99.9%
Oakland Operations Office					
Lawrence Berkeley National Laboratory (CA)	760	703	0	-703	>99.9%
Lawrence Livermore National Laboratory (CA)	736	125	0	-125	>99.9%
Oakland Operations Office (CA)	290	290	0	-290	>99.9%
Total, Oakland Operations Office	1,786	1,118	0	-1,118	>99.9%
Ohio Operations Office					
Fernald Environmental Management Project (OH)	2,625	6,775	0	-6,775	>99.9%
Mound (OH)	920	1,000	0	-1,000	>99.9%
West Valley (NY)	1,005	855	0	-855	>99.9%
Ohio Operations Office (OH)	945	1,594	0	-1,594	>99.9%
Total, Ohio Operations Office	5,495	10,224	0	-10,224	>99.9%
Richland Operations Office					
Pacific Northwest National Laboratory (WA)	10,246	11,092	0	-11,092	>99.9%
Richland Operations Office (WA)	8,887	7,082	0	-7,082	>99.9%
Total, Richland Operations Office	19,133	18,174	0	-18,174	>99.9%
Rocky Flats Office					
Kaiser Hill (CO)	5,010	3,177	0	-3,177	>99.9%
Savannah River Operations Office					
Savannah River Site (SC)	16,480	18,075	0	-18,075	>99.9%
Savannah River Operations Office (SC)	4,927	4,485	0	-4,485	>99.9%
Total, Savannah River Operations Office	21,407	22,560	0	-22,560	>99.9%
Headquarters					
Washington, D.C.	6,480	16,418 [a]	92,000 [b]	75,582	460.4%
Subtotal, Science and Technology	203,378	204,732 [c]	92,000	-112,732	-55.1%

[a] Includes $1,985,000 in FY 2002 for Small Business Innovative Research assessment.

[b] Includes an estimate of $2,438,000 in FY 2003 for Small Business Innovative Research assessment.

[c] Final distribution of funds by site could change due to changing site priorities and final receipt, review, selection and award of technical responses.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003

Radioactive Tank Waste Remediation Focus Area 55,289 53,118 0

The Radioactive Tank Waste Remediation Focus Area addresses 80 high priority needs in the development and deployment of technical solutions to remove high-level waste in over 280 large radioactive and other miscellaneous underground storage tanks across the DOE complex and processing the waste for final disposal. Closure of these tanks, which currently contain approximately 90 million gallons of radioactive waste, will mitigate further risks to groundwater and surrounding populations, and contribute significantly to mortgage reduction. In addition, the Radioactive Tank Waste Remediation Focus Area assist individual sites in the deployment of science and technology to reduce risk and cost; enable baseline tank remediation to be implemented, thereby accelerating cleanup at those sites; and maintain sound program management and integration processes.

Subsurface Contaminants Focus Area 40,729 40,185 0

The Subsurface Contaminants Focus Area addresses technological solutions for the 5,000 DOE plumes that contaminate 1.7 trillion gallons of groundwater and 40 million m3 of soil. Approximately three million cubic meters of solid radioactive and hazardous wastes buried in landfills and trenches must be contained so they do not leach and further contaminate soil and groundwater. The EM sites' baseline planning data include 80 high priority needs for the development and deployment of technologies to remediate contaminated soil and groundwater. The Subsurface Contaminants Focus Area divides its work to solve these problems into three areas: Destruction of dense non-aqueous phase liquids, primarily chlorinated organic solvents that are now polluting groundwater from localized underground pools; containment or stabilization of concentrated waste in landfills, trenches, and around leaking high-level waste tanks; and treatment or stabilization of hazardous metals and radionuclides dispersed in soils and groundwater. In addition, the Subsurface Contaminants Focus Area assist individual sites in the deployment of science and technology to reduce risk, cost, accelerate cleanup, and maintain sound program management and integration processes.

Transuranic and Mixed Waste Focus Area 31,870 28,239 0

The Transuranic and Mixed Waste Focus Area provides technical and engineering solutions for supporting effective, efficient mixed waste treatment technology systems. The EM sites' baseline planning data identified about 154,000 cubic meters of mixed and transuranic waste in storage that includes over 754 mixed waste streams. About 108,000 cubic meters, or 70 percent of the total inventory, is categorized as transuranic. The Environmental Management sites' baseline planning data has identified 60 high priority technology needs in the mixed and transuranic waste areas. In addition, the Transuranic and Mixed Waste Focus Area assist in the deployment of science and technology at individual sites to reduce risk, cost, accelerate cleanup, and implement and maintain sound program management and integration processes.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

Deactivation and Decommissioning Focus Area 27,105 29,509 0

The Deactivation and Decommissioning Focus Area develops, demonstrates, and facilitates implementation and deployment of safe and cost effective technologies that address real needs pertaining to the 20,000 radiologically/hazardous waste contaminated buildings and facilities. The near-term goal is to reduce the EM deactivation and decommissioning mortgage by 25 percent and 50 percent in the long-term (i.e. post 2006), for a net reduction of approximately $5,000,000,000. The EM sites' baseline planning data has identified 38 high priority needs. In addition, the Deactivation and Decommissioning Focus Area assist individual sites in the deployment of science and technology to reduce risk, cost, accelerate cleanup, and maintain sound program management and integration processes.

Nuclear Materials Focus Area 7,954 10,186 0

The Nuclear Materials Focus Area supports the safe management and expeditious stabilization of nuclear materials currently under the purview of the Office of Environmental Management. Technical solutions to the broad range of challenges associated with management of nuclear materials will be identified and provided to the EM complex. The EM sites' baseline planning data has identified 36 high priority needs in the nuclear materials problem area. This Focus Area will assist individual sites in the deployment of science and technology to reduce risk, cost, accelerate cleanup, and maintain sound program management and integration processes.

Environmental Management Science Program 0 0 0

The EM Science Program was created to support scientific research essential to solve the cleanup problems of the Nation's nuclear weapons complex. The program's objective is to improve the effectiveness of the cleanup effort over the long-term. The EM Science Program represents a partnership between DOE's Office of Science and EM. The Office of Science manages the solicitation of proposals and scientific review process. EM ensures that the research is relevant to the Department's cleanup problems.

In FY 2003, the EM Science Program has been transferred to the Office of Science. For comparability purposes, no funding is shown for FY 2001 and FY 2002.

Idaho Environmental Systems Research and Analysis 21,000 20,000 0

The Idaho National Engineering and Environmental Laboratory supports EM in its long-term cleanup mission by developing and maintaining critical environmental science capabilities, environmental research, and support for the transition of basic science to engineering applications and problem solutions.

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
Technology Applications	**19,431**	**21,510**	**0**

The Technology Applications program promotes the broad acceptance and deployment of available and emerging innovative technologies; supports the collection, analysis, and communication of project specific data and program information; facilitates the implementation of sound business management practices; interacts with the international scientific and technical community; and assists in science and technology laboratory management policy and review.

Small Business Innovative Research Program (Technology Development)	**0**	**1,985**	**0**

Funding for the Small Business Innovative Research assessment in accordance with Public Law 102-564, which mandates a percentage of all research and development dollars be set aside for grants to small businesses. Once funding is appropriated, it is transferred to the DOE Office of Science for award and administration of grants to small businesses.

In FY 2003, an estimate of $2,438,000 is included for the Small Business Innovative Research Program within the Closure Site Support and Alternative Approaches to Current High Risk/High Cost Baselines.

Environmental Management Long-Term Stewardship	**0**	**0**	**0**

The mission of the Long-Term Stewardship program is to ensure the sustainable protection of human health and the environment after cleanup is completed, sites are closed, waste is emplaced for disposal, or facilities are stabilized for long periods while awaiting further remediation. The Long-Term Stewardship program is responsible for the overall Environmental Management Long-Term Stewardship coordination and management including: establishing policy, issuing guidance, conducting oversight, coordinating information, determining science and technology needs, and liaison to stakeholders groups throughout the Department of Energy and coordination with other Federal and State organizations and other external organizations.

In FY 2003, the Long-Term Stewardship activities have been transferred to the Defense Multi-site account. For comparable purposes, no funding is shown for FY 2001 and FY 2002.

Closure Site Support and Alternative Approaches to Current High Risk/High Cost Baselines	**0**	**0**	**92,000** [a]

The EM mission requires focused and strong support in research and development and applied technology. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on core research and development functions to support intermediate and long-term needs for cleanup and closure. The Science and Technology program will also focus on vulnerabilities in baseline technologies that need to be assessed, and applied technologies provided to resolve those vulnerabilities. Alternatives to baseline technologies will be developed that can reduce programmatic risk, improve schedule, and reduce costs.

[a] Includes an estimate of $2,438,000 in FY 2003 for the Small Business Innovative Research Program.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

In the course of identifying a path forward based on the results of the EM "Top-to-bottom" review, the Science and Technology program will strive to focus on important technologies that emphasize risk reduction and meet high priority needs at closure sites. With the new focus of the program in mind, potential FY 2003 accomplishments may include:

- # Demonstrate remote canister decontamination technologies for glovebox or hotcell located at West Valley to support off site shipment of wastes and site closure milestones.
- # Demonstrate size reduction and dismantlement technologies on failed vitrification equipment at Savannah River and West Valley to avoid costly storage of contaminated equipment.
- # Complete demonstration of multiple real-time sensors and monitors for the Fernald Post Closure Monitoring Test Facility.
- # Demonstrate Long-Term Cover Guidance through installation of a cover at the Rocky Flats and evaluate Long-Term Cover performance degradation caused by plant root intrusion.
- # Begin development of long-term performance assessment of waste cell covers for humid regions to support Savannah River, Oak Ridge, Chicago and Ohio needs.
- # Continue support to closure sites through the Rocky Flats Initiative to reduce worker safety and health risks during dismantlement and disposal activities and the Mound Long-Term Stewardship Initiative to demonstrate and deploy safe and reliable systems for long-term surveillance and monitoring of buildings.
- # Initiate Hot Cells Large Scale Demonstration and Deployment Project to demonstrate and deploy a suite of innovative technologies to safely and cost-effectively deactivate and decommission hot cells and associated equipment at West Valley and Columbus-West Jefferson sites.
- # Design, develop, and demonstrate an automated materials processing and dry powder down-blending system for low enriched uranium materials at Fernald.
- # Analyze approaches to meet transportation standards for hydrogen materials at Rocky Flats, Hanford and Savannah River.
- # Deploy neutron moderation technology as a bulk moisture measurement technique for stabilized plutonium materials at Rocky Flats, Hanford and Savannah River.

Total, Science and Technology Program	203,378	204,732	92,000

Explanation of Funding Changes from FY 2002 to FY 2003

	FY 2003 vs. FY 2002 ($000)
Radioactive Tank Waste Remediation Focus Area	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	-53,118
Subsurface Contaminants Focus Area	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	-40,185
Transuranic and Mixed Waste Focus Area	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	-28,239
Deactivation and Decommissioning Focus Area	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	-29,509

	FY 2003 vs. FY 2002 ($000)
Nuclear Materials Focus Area	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	-10,186
Idaho Environmental Systems Research and Analysis	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	-20,000
Technology Applications	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	-19,695
Small Business Innovative Research Program (Technology Development)	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	-3,800

	FY 2003 vs. FY 2002 ($000)
Closure Site Support and Alternative Approaches to Current High Risk/High Cost Baselines	
# In FY 2003, the administration proposes to refocus the Science and Technology program. The Science and Technology program plans to divert support of non-related programs and laboratories which do not meet the current EM mission needs and focus on high priority technical needs at closure sites; identifying technology vulnerabilities; supporting technology needs on short and intermediate-term projects; and focusing on high risk, high payoff projects	92,000
Total Funding Change, Science and Technology Program	-112,732

Excess Facilities

Program Mission

The mission of the Defense Excess Facilities, carried out for the Department by the Environmental Management Program in collaboration with the transferring programs, is to manage the transfer for the final disposition of excess contaminated physical facilities leading to significant risk and cost reductions.

Program Strategic Performance Goals

The Department's overall goal of the Defense Excess Facilities is to transfer excess contaminated facilities from across the Department's many programs for deactivation and decommissioning. Many of these facilities have existed far beyond their intended useful life and require expenditures of significant surveillance and maintenance funds to remain in a safe condition. Deactivation and decommissioning, when complete, will reduce or eliminate these expenditures.

In FY 2003, the Department will continue to fund the surveillance and maintenance of the excess facilities transferred to EM in FY 2002. These were the first transfers under DOE Order (435.1A) on Life-Cycle Asset Management, revised in October 1998. The Department anticipates that additional excess facilities may transfer to the EM program for disposition in FY 2003 and future years. These transfers will set the stage for the cleanup of facilities no longer needed for mission work to begin in accordance with EM cleanup priorities. Additional funding is necessary to actually accomplish decommissioning of these facilities. The EM program will:

- Establish an efficient and effective, long-term approach for managing the transfer of excess facilities to EM.
- Maintain excess facilities in a safe and stable condition until deactivation and decommissioning activities can begin.

Significant Accomplishments and Program Shifts

The FY 2003 request includes funds for surveillance and maintenance to enable EM to maintain the FY 2002 transferred facilities in a safe condition.

Funding Profile

(dollars in thousands)

	FY 2001 Comparable Appropriation	FY 2002 Original Appropriation	FY 2002 Adjustments	FY 2002 Comparable Appropriation	FY 2003 Request
Excess Facilities	0	4,874	0	4,874	1,300
Total, Defense Excess Facilities	0	4,874	0	4,874	1,300

Public Law Authorization:

Public Law 107-66, “The Energy and Water Development Appropriations Act, 2002"

Public Law 107-333, “National Defense Authorization Act for FY 2002"

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Albuquerque Operations Office	0	100	100	0	0.0%
HQ-Reserve	0	3,574	0	-3,574	-714.8%
Oak Ridge Operations Office	0	500	500	0	0.0%
Savannah River Operations Office	0	700	700	0	0.0%
Total, Defense Excess Facilities	0	4,874	1,300	-3,574	-73.3%

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
AL-EF-01 / Albuquerque Excess Facilities	0	100	100	0	0.0%
HQ-Reserve	0	3,574	0	-3,574	-100.0%
OR-EF-01 / Oak Ridge Excess Facilities (Def)	0	500	500	0	0.0%
SR-EF-01 / Savannah River Excess Facilities	0	700	700	0	0.0%
Total	0	4,874	1,300	-3,574	-73.3%

Site Descriptions

Albuquerque Operations Office/Pantex Plant

The Pantex Plant is located near Amarillo, Texas and has the responsibility for dismantlement and maintenance of the Nation's nuclear weapon stockpile and storage of plutonium from dismantled weapons. The facilities at the site have been used to support research and development of high explosives and the assembly/disassembly of the nation's nuclear weapons. A number of facilities proposed for action are associated with recently discovered groundwater contamination (source-term) and their disposition is a necessary precursor to remediation.

Oak Ridge Operations Office/Y-12 Site

The Y-12 site, once a uranium processing facility, now dismantles nuclear weapon components and serves as the nation's storehouse for special nuclear materials. The site is approximately 811 acres and is located about two miles southwest of Oak Ridge, Tennessee. Appropriate deactivation and decommissioning of the proposed facilities will reduce the risks and mortgage of the site, freeing up requested space and facilitate the conduct of mission related activities.

Savannah River Operations Office/Savannah River Site

The Savannah River Site, located near Aiken, South Carolina, covers over 300 square miles and encompasses many contaminated facilities and land areas. The facilities have varying degrees of environmental contamination with the majority requiring remedial action to address environmental and health risks. Near term deactivation planning will facilitate accelerated deactivation once mission related activities (vault and material stabilization) are completed.

Detailed Program Justifications

(dollars in thousands)

FY 2001	FY 2002	FY 2003

The scope planned for FY 2003 has been reviewed and is appropriate to meet the surveillance and maintenance goals of the Excess Facility Transfer activities. The funds requested for FY 2003 are appropriate based on cost estimates and estimating models. Memorandum of Agreements for new facilities are currently in the negotiation process and funding is not reflected.

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
AL-EF-01 / Albuquerque Excess Facilities	**0**	**100**	**100**

Funding will be used to perform surveillance and maintenance activities on the Pantex Explosive Machining and Weapons/Complex (Building 12-024 complex), Explosives Filter Area 11-044, and Zone 10 facilities to monitor a continuing source of high explosive contamination under both buildings, and also demolition of an old, abandoned warehouse (Building 08-008).

Continue surveillance and maintenance activities on the Explosive Machining and Weapons/Complex (Building 12-024 complex).

HQ-EF-Defense	**0**	**3,574**	**0**

Congress appropriated additional FY 2002 funding to begin actual deactivation and decommissioning. These funds are being held in reserve until a determination is made by EM to decide how to best distribute these funds to the field. No additional funds requested in FY 2003.

OR-EF-01 / Oak Ridge Excess Facilities (Defense)	**0**	**500**	**500**

This project performs surveillance and maintenance and decommissioning assessments on the Criticality Experimental Lab (Building 9213) and the Plating shop (Building 9401-02).

Continue surveillance and maintenance activities to maintain the facilities in a safe condition.

SR-EF-01 / Savannah River Excess Facilities	**0**	**700**	**700**

Funding will be used to perform surveillance and maintenance and deactivation and decommissioning assessments on the Plutonium Fuel Form Facility/Plutonium Extraction Facility and Old Met Lab.

Continue surveillance and maintenance and deactivation and decommissioning assessments on the Plutonium Fuel Form Facility/Plutonium Extraction Facility and Old Met Lab.

Total, Excess Facility Transfer Program	0	4,874	1,300

Explanation of Funding Changes

	FY 2003 vs. FY 2002 ($000)
AL-EF-01 / Albuquerque Excess Facilities	
# No change.	0
HQ-EF-Def	
# In FY 2003, the administration proposes to eliminate additional funds for excess facilities to permit Environmental Management to accelerate risk reduction elsewhere.	-3,574
OR-EF-01 / Oak Ridge Excess Facilities (Defense)	
# No change.	0
SR-EF-01 / Savannah River Excess Facilities	
# No change.	0
Total Funding Change, Excess Facility Transfer Program	-3,574

Multi-Site

Program Mission

The Defense Environmental Restoration and Waste Management, Multi-Site Activities account, includes projects that will require funding beyond 2006. Within the Defense Environmental Restoration and Waste Management appropriation, this account includes activities to provide management and direction for various crosscutting EM and DOE initiatives, establish and implement national and departmental policy; and conduct analyses and integrate actions across the DOE complex. These activities provide the policy basis and foundation for sites to complete their mission and identify opportunities that result in cost savings from site baseline.

Program Strategic Performance Goals

Providing better coordination of EM-wide and DOE-wide efforts within DOE and with stakeholders is the overall goal of the Multi-Site account. These efforts particularly avoid overlaps and inconsistencies amongst sites, thereby achieving a more efficient and cost-effective program.

Annual Performance Results and Targets

FY 2001 Actuals	FY 2002 Estimate	FY 2003 Estimate

No quantifiable corporate performance measures are associated with this account.

Significant Accomplishments and Program Shifts

*Comparabilities*. The FY 2003 request has been prepared on a comparable basis. All activities and funds are displayed for FY 2001 and FY 2002 as if they were appropriated in the same appropriation and program account under which they are requested in FY 2003. The FY 2001 and FY 2002 Appropriations have been adjusted to reflect the transfer of the Long-Term Stewardship program from the Science and Technology account.

Funding Profile

(dollars in thousands)

	FY 2001 Comparable Appropriation	FY 2002 Original Appropriation	FY 2002 Adjustments	FY 2002 Comparable Appropriation	FY 2003 Request
Multi-Site	506,893	553,934	0	553,934	479,871
Total, Defense Multi-Site	506,893	553,934	0	553,934	479,871

Public Law Authorization:

Public Law 95-91, “Department of Energy Organization Act (1977)”

Public Law 102-579, “Waste Isolation Pilot Plant Land Withdrawal Act (1992)”

Public Law 103-62, “Government Performance and Results Act of 1993"

Public Law 106-377, “The Energy and Water Development Appropriations Act, 2001"

Public Law 106-398, “The National Defense Authorization Act for Fiscal Year 2001"

Public Law 107-66, “The Energy and Water Development Appropriations Act, 2002"

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Multi-Site	87,817	133,934	37,871	-96,063	-71.7%
Uranium Enrichment Decontamination and Decommissioning Fund Deposit	419,076	420,000	442,000	22,000	5.2%
Total, Multi-Site	506,893	553,934	479,871	-74,063	-13.4%

Multi-Site

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Multi-Site Activities account, is to provide management and direction for various crosscutting EM and DOE initiatives, establish and implement national and departmental policy; and conduct analyses and integrate activities across the DOE complex. These activities provide the policy basis and foundation for sites to complete their mission. The activities also identify opportunities that result in cost savings from site baselines.

The funds requested in the Multi-Site Activities account consist of Headquarters technical integration efforts which focus on assuring the disposition of waste and materials; support activities to transfer excess facilities into the EM program in a safe and cost-effective manner; Emergency Preparedness (facility and transportation); and Transportation and Packaging activities.

In FY 2003, the Long-Term Stewardship program transferred from the Science and Technology account to the Multi-Site Activities account. The mission of the Long-Term Stewardship program is to ensure the sustainable protection of human health and the environment after cleanup is completed, sites are closed, waste is emplaced for disposal, or facilities are stabilized for long periods while awaiting further remediation. The Long-Term Stewardship program is responsible for the overall Environmental Management Long-Term Stewardship coordination and management including: establishing policy, issuing guidance, conducting oversight, coordinating information, determining science and technology needs, and liaison to stakeholders groups throughout DOE and coordination with other Federal and State organizations and other external organizations.

The Multi-Site Activities account also funds the Uranium Enrichment Decontamination and Decommissioning Fund. The Federal Government deposit to the Uranium Enrichment Decontamination and Decommissioning Fund is required by the Energy Policy Act of 1992, which authorizes annual deposits into the Uranium Enrichment Decontamination and Decommissioning Fund of up to $480,000,000 annually adjusted for inflation. Domestic utilities are to be assessed up to $150,000,000 per year (adjusted for inflation) for 15 years based on their purchase of Department-produced separative work units. The remainder of the annual deposit, currently estimated at approximately $420,000,000 in FY 2001 and FY 2002, and $442,000,000 in FY 2003, was authorized to come from annual congressional appropriations.

Program Goal

The overall goal of the Multi-Site Activities account is to allow the Environmental Management program to better coordinate EM-wide and DOE-wide program efforts both within DOE and with stakeholders. Efforts supported by the Multi-Site Activities account particularly avoid overlaps and inconsistencies amongst sites, thereby achieving a more efficient and cost-effective program. The Multi-Site Activities account provide complex-wide services and infrastructure, and promotes the sharing of knowledge and equipment/facilities across sites. This focus on integration between and within sites decreases cost and by accelerating cleanup, reduces risk. The following paragraphs provide an overview of the EM and DOE initiatives supported within the Multi-Site Activities account.

The Multi-Site account funds many activities in the Office of Integration and Disposition. The mission of this office is to promote, enable, and expedite site closure and project completion by providing Multi-Site services throughout the complex. The office accomplishes its integration function by developing and implementing cross-cutting policy, planning and guidance, and by providing expert technical assistance for the EM program. In particular, the Multi-Site Activities account provides funding for the four sub-offices within the Office of Integration and Disposition (Offices of Nuclear Material and Spent Fuel, Technical Program Integration, the Waste Isolation Pilot Plant Office, and Transportation), as well as the Transportation Emergency Preparedness, and Transportation and Packaging Management national programs.

The purpose of the Office of Nuclear Material and Spent Fuel is to integrate DOE's nuclear materials stewardship activities to achieve safe, interim storage of surplus nuclear materials and spent nuclear fuels, as well as identify and implement options for the final disposition of these materials. The office identifies locations for consolidation of nuclear materials and develops disposition pathways, thereby resolving cross-cutting nuclear materials management issues and supporting closure of EM sites. It also manages the interfaces with other DOE programs that have nuclear materials and spent nuclear fuel. Specific emphasis is placed on coordination of activities with the National Nuclear Security Administration, Office of Materials Disposition and the Office of Civilian Radioactive Waste Management. Coordination also involves the Defense Nuclear Facilities Safety Board, the Nuclear Regulatory Commission, and the International Atomic Energy Agency.

The purpose of the Office of Technical Program Integration is to provide technical and analytical guidance on waste management, deactivation and decommissioning activities, and environmental restoration programs. The office provides expert technical support to site specific transition, deactivation, decommissioning, and surveillance and maintenance activities. Program goals for the Office of Technical Program Integration include resolving issues associated with implementation of complex-wide waste management configurations (e.g., establishing cost policy for disposal of low-level waste and mixed low-level waste at DOE disposal sites); providing guidance and overseeing implementation of DOE waste management and facility transfers, deactivation and decommissioning orders; establish DOE policy on recycle of scrap metals from radiologically controlled areas; promoting efficiencies through sharing of technical lessons learned and the use of more effective technologies; establish policy regarding implementation of DOE's requirements under the Low-Level Waste Policy Amendments Act to accept and manage the Greater-than-Class-C waste from commercial facilities; developing recommendations for cost savings particularly with respect to managing long-term groundwater remediation projects; interfacing with the Environmental Protection Agency regarding soil action cleanup levels; coordinating with other DOE program areas to collect Department-wide waste data to support International Treaty commitments, and representing the United States in the international community on waste management safety issues.

Funding for Multi-Site programs includes the National Facility Deactivation Initiative which provides technical expertise and proven field developed and tested tools and methodologies to sites facility deactivation planning. In addition, the Office of Integration and Disposition provides policy development and physical verification that all requirements have been met to transfer contaminated excess facilities from DOE program offices (Defense Programs, Nuclear Energy, and Science) to EM in a safe and efficient manner. Several hundred excess contaminated facilities are proposed to be transferred to the EM program over the next few years.

The purpose of the Office of Transportation is to develop and maintain baseline transportation resources, such as effective strategies, policy, and guidance for the safe and cost-effective transportation of DOE wastes and materials. Three principal initiatives are the National Transportation and Packaging Program, the Transportation Emergency Preparedness Program, and the Foreign Research Reactor Spent Fuel Acceptance Program.

The goal of the National Transportation and Packaging Program is to provide the infrastructure for waste and materials to be transported for safe storage and/or disposal. Main functions are to develop and maintain DOE's baseline transportation services including route selection with the Department of Transportation, develop policy, ensure a fleet of transport containers are maintained, and ensure training and protocols are provided for major shipping campaigns. Specific activities for the program include: completing system-wide assessment of DOE's transportation and packaging needs; provide a safe, environmentally compliant, and cost-effective transportation management system; provide a logistics center for transportation campaigns across the complex; focusing expertise from the Department's transportation and packaging technical base program to solve transportation and packaging requirements needs; and enhancing relationships and coordinating communication throughout the Department and with stakeholders.

The goal of the Transportation Emergency Preparedness Program is to assist in preparing DOE and other Federal, state, tribal, and local authorities to respond to any transportation incidents involving DOE shipments of radioactive material. The program provides the linkage between emergency preparedness and transportation activities.

The Office of Transportation is also responsible for managing the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program. The goal of the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program is to support the U.S. Government policy to reduce and eventually eliminate the use of weapons-usable enriched uranium in civil commerce, and to serve as technical experts in resolving issues associated with shipments under the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program.

Policy and Management activities focus on three major areas: tribal liaison efforts, intergovernmental and public accountability activities, regulatory compliance, and certain technical training. The primary goal of EM's Tribal program, within the Policy and Management Program, is to fully implement DOE's American Indian Policy. The EM program maintains cooperative agreements with ten Tribal Nations to enhance their direct involvement in cleanup decisions and activities. The cooperative agreements build core scientific and technical capacity at the Tribal level and allow for the establishment of Tribal environmental program offices. As a practical matter, the cooperative agreements enhance the government-to-government relationship between the Department and Tribal Nations, which is the cornerstone of the Department's American Indian Policy.

The main goal of EM's Office of Intergovernmental and Public Accountability, within the Policy and Management program, is to promote active public involvement in the EM planning and decision-making processes. Specifically, the mission of the office is to provide State, Tribal, and local governments and other interested stakeholders with opportunities for meaningful involvement in managing the cleanup and closure of the Nations' former nuclear weapons complex. The principal means by which this goal is accomplished is through the EM Site-Specific Advisory Board and through grants and cooperative agreements with the National Governors' Association, the National Association of Attorneys General, and the National Conference of State Legislatures. The Policy and Management program also includes the goal of implementing training and education programs to meet implementation plan commitments for Defense Nuclear Facilities Safety Board recommendations.

The goal of the Office of Site Closure is to promote and expedite required Environmental Management site closure activities and to provide support of other DOE initiatives. Activities supported include performance measure tracking, cross complex support initiatives, closure specific requirements/issues, analysis of cleanup levels/standards; review of various waste issues, including the low-level waste Federal review group activities, information/data management integration, project review/analysis and other cleanup related requirements.

The goal of the Office of Project Completion is to assure continuation of technical and managerial efforts associated with field support. This will include technical expertise and assistance to Federal staff responsible for overseeing and assessing site activities, such as successful site waste management and environmental restoration project completion activities, high-level waste storage tank safety issues, nuclear material and stabilization surveillance activities, site safety and health review and analysis, and activities associated with Environmental Impact Statements and Records of Decisions.

The goal of the Long-Term Stewardship program is to enable the Department to provide safe and effective long-term stewardship from residual hazards while optimizing future land and resource use. Achieving this goal requires the development and implementation of policies, strategic and program planning, issue identification and resolution, as well as oversight functions necessary to ensure the adequate protection of public health and the environment for sites already in long-term stewardship.

The Multi-Site account also funds activities in the Office of Safety, Health and Security. The role of the office is to mitigate safety and security risks across sites and programs. The office also has responsibilities related to facility emergency management, analytical services, quality assurance, and risk management, in addition to serving as the Department's package certification official.

The overall goal of the Emergency Preparedness Program is to ensure that EM sites/facilities and Headquarters are prepared to respond efficiently and effectively to an operational emergency at any EM site or facility. The objective of the Emergency Preparedness Program is to reduce the risks associated with operational emergencies at EM facilities/sites and activities by ensuring that adequate emergency planning and training and exercise programs are established and maintained to support field and Headquarters EM emergency response personnel. The program also provides for emergency planning, training, and resources to ensure that EM Headquarters management and staff understand their potential emergency roles on the Headquarters Emergency Management Team in the event of an emergency at an EM site or facility.

The goal of the Analytical Services Program is to ensure reliability, adequacy, and economy of environmental data by developing and implementing policy guidance on planning, generation, interpretation, and use of environmental sampling and analytical data. Program activities include training and guidance to enhance and implement systematic planning (Data Quality Objectives) to focus data collection on specific information and uncertainty requirements necessary to document and support environmental decisions. In addition, activities include Analytical Services Program projects to ensure analytical laboratory data are technically and legally defensible. Collectively, the Analytical Services Program's goal is effective environmental planning (e.g., data quality objectives process) linked from analytical systems through efficient data transfer, documentation, assessment, integration, and use to vindicate immediate and long-term EM program decisions. Closure sites require known and adequate environmental data to return DOE property to the Public Domain and to maintain cleanup schedules.

Program Objectives

The Multi-Site activities focus national attention on several areas that impact the Environmental Management goals and planned efforts which cut across the Department of Energy complex.

Significant Accomplishments and Program Shifts

Policy and Management

Improve analytical capabilities for and conduct comparative life-cycle analyses for EM programs and projects (FY 2001/FY 2002).

- Provide general analytic and production support to national environmental policy development (FY 2001/FY 2002).
- Continue providing for EM-wide information management infrastructure activities and provide for hardware, software, maintenance, and upgrades to support management information systems (FY 2001/FY 2002).
- Continue to maintain and develop EM's government-to-government relationship with ten tribes designed to foster cooperation on waste shipment and environmental restoration efforts (FY 2001/FY 2002).
- Continue to implement training and education programs to resolve the Defense Nuclear Facilities Safety Board recommendations (FY 2001/FY 2002).
- Conduct technical, regulatory, and policy analysis required for interactions with regulators (FY 2002).
- Promote safety awareness throughout EM, gather, compile, interpret and report on safety information from the field (FY 2002).

Support to Project Completion

- Provide peer review and conditional approval to Performance Assessments of DOE low-level waste disposal sites as required by the Defense Nuclear Facilities Safety Board Recommendation 94-2. Review and approve Composite Analyses for the Idaho National Engineering and Environmental Laboratory, and the Nevada Test Site Area 5 and issue Disposal Authorization Statements (FY 2001/FY 2002).
- Interact with internal oversight organizations and external Federal and State regulators to ensure that waste management facilities and activities meet regulatory requirements that are both protective of human health and the environment, and cost-effective. Areas of particular focus include Resource Conservation and Recovery Act regulations, and Environment, Safety and Health oversight under DOE Policy 450.5, Line Environment, Safety and Health Oversight (FY 2001/FY 2002).
- Oversee and assess site activities associated with high-level waste storage tank safety issues, nuclear materials and stabilization surveillance activities (FY 2001/FY 2002).

Support to Site Closure

- Provide for technical support to the Office of Site Closure, including performance measure tracking and data analysis, review of various waste issues and cleanup strategies, and other data management integration efforts (FY 2001/FY2002).
- Provide support of interagency agreements with the Environmental Protection Agency, General Services Administration, and the VOLPE National Transportation Systems Center for activities dealing with project review/baselining efforts, strategic/management plans, cost/schedule improvement efforts, and business management practices related to final closure of sites (FY 2001/FY 2002).

- # Provide support for crosscutting activities carried out by the various DOE/EM field offices in response to EM-wide integration, budget, and planning initiatives (FY 2001/FY 2002).
- # Provide for the Federal Contribution to the Uranium Enrichment Decontamination and Decommissioning Fund as required by the Energy Policy Act of 1992 (FY 2001/FY 2002).

Support to Integration and Disposition

- # Develop comprehensive low-level waste and mixed low-level waste cost disposal strategy (FY2002).
- # Initiate and complete an Environmental Impact Statement addressing the policy impacts of recycling scrap metals from radiologically controlled areas (FY 2001/FY 2002).
- # Refine disposition maps for DOE waste streams to show the planned pathways to move waste of materials from inventory or generation through required processing to treatment or stabilization and then to final disposition; conducted integrated planning to identify and evaluate significant opportunities to reduce risk and long-term mortgages associated with treatment and disposal of backlog waste, as well as areas that need significant attention to support site closure (FY 2001/2002).
- # Initiate and continue Headquarters assessments of field element compliance with the DOE Order 435.1, Radioactive Waste Management (FY 2001/2002).
- # Provide technical support for interactions with the Office of Civilian Radioactive Waste Management on high-level waste issues, including implementation of activities necessary to implement the Environmental Management/Radioactive Waste Memorandum of Agreement, prepare responses to comments on high-level waste issues for the Yucca Mountain Environmental Impact Statement and assistance in preparation of the Site Recommendation Report for Yucca Mountain (FY2001/FY2002).
- # Continue an Environmental Impact State identifying disposal options for “Greater-than-Class-C Waste” (FY 2002).
- # Provide support on Foreign Research Reactor Spent Nuclear Fuel Acceptance Program shipments, especially those from reactors with serious or sensitive nonproliferation and/or safety implications (FY 2001/FY 2002).
- # Continue to support the Department’s commitments to the Environmental Security Interagency Agreement (with DOE and the Environmental Protection Agency supported by Department of State). This is principally through support of the Arctic Military Environmental Cooperation program and the International Institute for Applied Systems Analysis (FY 2001/FY 2002).
- # Continue to support Headquarters directed National Facility Deactivation Initiative activities to achieve acceleration of deactivation and decommissioning and associated reduction in risk and mortgage. The continued development of deactivation methods, processes, and tools facilitates increased cost efficiencies and increased effectiveness in the completion of deactivation and decommissioning activities. Significant progress leading to risk/mortgage reduction was realized in FY 2000 at Richland, Brookhaven, and Rocky Flats (FY 2001/FY 2002).
- # Maintain and update the Manifest Information Management System commercial low-level waste data base at the Idaho National Engineering and Environmental Laboratory. This is the single

compiled source of commercial data in the United States that is used by federal agencies and states and will be used to comply with requirements of the International Atomic Energy Agency Waste Management and Special Nuclear Fuel Convention (FY 2002).

- # Continue to hold/implement the Technical Information Exchange Workshop to provide a forum for EM to share experience, expertise and lessons learned in environmental restoration, deactivation and decommissioning, and waste management among working level peers within the Department of Energy and with other Federal and state agencies, private sector industries, and other interested stakeholders. This is accomplished through multiple forums including workshops (held yearly), publications (Technical Information Exchange Quarterly), and electronic media (Technical Information Exchange Website) (FY 2001/FY 2002).
- # Continue to provide support to Headquarters and the field through the EM Lessons Learned program by promoting the sharing of knowledge across the Department of Energy complex with specific emphasis on lessons learned relevant to environmental management business and functional areas. The goals of the EM Lessons Learned Program are to improve the efficiencies and effectiveness, reduce risk and waste, as well as accelerate remediation project closure through the generation and utilization of lessons learned and by providing a clearing house for EM lessons learned across the DOE complex (FY 2001/FY 2002).
- # Provide support to integrate, optimize and manage DOE's long-term ground water remediation projects, including the identification and deployment of more efficient technologies (FY 2001/FY 2002).
- # Prepared the first long-term stewardship program baseline with initial estimates of scope, cost, and schedule. Baseline was submitted as a Report to Congress in accordance with the FY 2000 National Defense Authorization Act (FY 2001/FY 2002).
- # Conducted national scoping and public comment process to prepare a comprehensive National Study on long-term stewardship issues. Release the National Study September 2001 (FY 2001/FY 2002).
- # Developed and issued guidance for long-term stewardship planning (FY 2001/FY 2002).
- # Supported the development and implementation of initial policy regarding the ownership and transfer of sites within the Department into long-term stewardship (FY 2001/FY 2002).
- # Developed the Department's first strategic plan for long-term stewardship (FY 2001/FY 2002).
- # Completed the development and declared the Central Internet Database (one of the requirements from the Programmatic Environmental Impact Statement lawsuit settlement agreement) fully operational (FY 2001/FY 2002).

Hazardous Waste Worker Training Program

- # Support hazardous waste operations and emergency response training at the DOE weapons facilities and related sites (FY 2001/FY 2002).

Nuclear Criticality Safety Training

Continue to support and implement the Implementation Plan for the Defense Nuclear Facilities Safety Board Recommendation 97-2, Nuclear Criticality Safety Training (FY 2001/FY 2002).

Environmental and Regulatory Analysis

Conduct pilot projects at the DOE sites to demonstrate and evaluate the viability of utilizing the LandTech technology as a community based collaborative decision-making tool to achieve tangible solutions for site cleanup, site closure, and land title transfer of Federal properties to public interests (FY 2001/FY 2002).

Continue to support life cycle estimates for the Environmental Management Program (FY 2001/FY 2002).

Transportation and Packaging Management

Issued transportation protocal to ensure consistent practices amongst DOE offices regarding safe transportation of materials and waste (FY 2001/FY 2002).

Continue to assure safe and regulatory compliant transportation system and operations (FY 2001/FY 2002).

Identify packaging needs and develop packaging alternatives to ensure that transportation requirements are met (FY 2001/FY 2002).

Continue to provide effective transportation and packaging systems engineering and analysis support to the DOE waste and material disposition programs to anticipate transportation issues and forecast future needs, such as the annual Transportation Baseline Report (FY 2001/FY 2002).

Continue to integrate institutional outreach and stakeholder involvement activities with other DOE program offices, field offices, and other EM program offices and continue ongoing outreach coordination efforts, such as the Transportation External Coordination Working Group (FY 2001/FY 2002).

Develop, implement, and operate a satellite tracking system (TRANSCOM2000) for DOE shipments (FY 2001/FY 2002).

Develop and pilot test a consolidated process for a transportation grant program which would equitably fund states to enhance their transportation planning, information systems, and emergency preparedness and training activities for DOE shipments (FY 2001/FY2002).

Continue implementation of transportation protocols developed in conjunction with States and Tribes through the Transportation External Coordination Working Group (FY 2001/FY 2002).

Develop strategy to ship transuranic waste to the Waste Isolation Pilot Plant by rail (FY 2001/FY 2002).

Emergency Preparedness Program

Review EM site/facility emergency plans and procedures to assure that EM personnel can safely and efficiently respond to emergency events (FY 2001/FY 2002).

- # Continue to exercise Headquarters EM Emergency Management Team to improve Headquarters field coordination during emergencies occurring at EM facilities (FY 2001/FY 2002).
- # Fully implement EM Emergency Management program policy (FY 2001/FY 2002).
- # Continue to provide overall emergency program coordination with all elements of the Department through participation on the Emergency Management Coordinating Committee and other Departmental and Inter-Departmental groups and agencies (FY 2001/FY 2002).
- # Maintain the EM Headquarters Emergency Management Team and continue to provide training and information concerning Headquarters emergency response requirements (FY 2001/FY 2002).
- # Continue to develop management solutions which address EM emergency management corrective actions (FY 2001/FY 2002).
- # Provide administrative and budget oversight of the Hazardous Materials Management and Emergency Response Training Facility located at the Hanford site in Richland, Washington (FY 2001/FY 2002).
- # Provide limited training at the Hazardous Materials Management and Emergency Response Training Facility in the administrative building for availability of classrooms (FY 2001/FY 2002).
- # Continue to operate the EM Emergency Notification System to ensure that senior EM management receive accurate and timely notifications of emergencies and other incidents at EM sites and facilities (FY 2001/FY 2002).
- # Implement Emergency Management Continuity of Operations Program initiatives identified in FY 2002 (FY 2002).

Transportation Emergency Preparedness Program

- # Complete revision of the Modular Emergency Response Radiological Transportation Training material to include the Waste Isolation Pilot Plant State and Tribal Education Program. Distribute revised material to the states and tribes (FY 2001/FY 2002).
- # Develop Regional Transportation Emergency Preparedness Program plans that outline preparedness activities aimed at the support of responding state, local, and tribal entities (FY 2001/FY 2002).
- # Continue to conduct train-the-trainer sessions to facilitate state/tribes conducting their own radiological training as part of their current hazardous materials curricula (FY 2001/FY 2002).
- # Through the Transportation Emergency Preparedness program coordinators in each region:
  - < Establish a dialog to discuss emergency response roles, responsibilities, capabilities, notification procedures, and information needs with state and tribal governments along transportation corridors used for DOE unclassified radioactive material shipments (FY 2001/FY 2002);
  - < Provide planning information and assistance to state and tribal contacts for shipping activities affecting their region (FY 2001/FY 2002);

- < Coordinate with site transportation programs to identify planned unclassified radioactive material shipments to assist state and tribal organizations in planning for the various shipments (FY 2001/FY 2002); and
- < Provide access to the Modular Emergency Response Radiological Transportation training to state and tribal training points of contact within their region (FY 2001/FY 2002).

Work with Federal Emergency Management Agency to reduce duplication of training materials (FY 2002).

- < Coordinate with the Federal Emergency Management Agency to include the Transportation Emergency Preparedness Program needs assessment in the local and Tribal Capabilities Assessment Readiness Systems (FY 2002).

Analytical Services Program

Implement guidelines that will allow reference laboratories to establish a direct link to the national standard (National Institute of Science and Technology) in analytical measurement processes and the preparation of secondary standards. The guidelines delineate the process of establishing a reference or secondary laboratory according to requirements established by the American National Standards Institute (FY 2001/FY 2002).

Maintain active role and leadership in Intergovernmental Programs to develop, distribute and implement quality system and technical program guidance (radiochemistry laboratory protocols) (FY 2001/FY 2002).

Complete and distribute Interim Final Quality Systems guidance as a joint Environmental Protection Agency, Department of Defense, and DOE product for the assessment and development of environmental data collection processes (FY 2001/FY 2002).

The Commercial Laboratory Audit Program will assess >40 facilities and has integrated assessment of internal DOE laboratories into the program (FY 2002).

Develop and maintain cooperative funding proposals and resources for shared programs from both the Environmental Protection Agency and the Department of Defense to enhance Systematic Planning/Decision Uncertainty Training and Implementation (FY 2002).

Pollution Prevention

Won eight White House Closing the Circle Awards in FY 2001, including the Agency Award (FY 2001).

Saved $168,000,000 by implementing pollution prevention projects (FY 2001).

Reduce the Department's generation of hazardous and radioactive wastes from routine operations to less than 40 percent of its 1993 level (FY 2001/FY 2002).

Prepare Resource Conservation and Recovery Act (Section 6002) Agency Summary Report to the Office of Management and Budget and Office of Federal Environmental Executive (FY 2001/FY 2002).

- # Prepare the Department's Annual Waste Generation and Pollution Prevention Progress Report to meet the Programmatic Environmental Impact Statement lawsuit settlement and Executive Order 13148 (FY 2001/FY 2002).
- # Implement and continue a Department-wide pollution prevention awards program. Over seventy excellent nominations were submitted by the DOE sites. This program is a great incentive for the field pollution prevention staff and is required by Executive Order 13148 (FY 2001/FY 2002).
- # Coordinate the Department's pollution prevention program and developed policy, guidance, and plans to facilitate pollution prevention, recycling, and affirmative procurement, in coordination with other Program Secretarial Offices (FY 2001/FY 2002).
- # Implement 20 Pollution Prevention Return-on-Investment projects with a projected life-cycle savings of $40,000,000 - $50,000,000 to the Department through reduced waste disposal costs.

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
HQ-EM5-ASP / Analytical Services Program	2,685	1,286	1,286
HQ-EM74 / Hazardous Waste Worker Training Program (HAZWOPER)	8,481	8,481	0
HQ-EM75 / Environmental and Regulatory Analysis	798	752	0
HQ-LTS / Long-Term Stewardship Activities	8,000	8,000	1,000
HQ-PM-001 / Policy and Management	34,491	59,459	18,966
HQ-PM-PC / Policy and Management (Multi-Site)	0	25,620	0
HQ-TMHQ1 / Transportation and Packaging Management	11,100	10,568	10,568
HQEM20 / Support to Integration and Disposition	7,942	7,559	3,559
HQEM24 / Transportation Emergency Preparedness	1,956	1,865	1,000
HQEM30 / Support to Site Closure	1,082	1,036	500
HQEM40 / Support to Project Completion	466	446	200
HQEM5 / Emergency Preparedness Program	838	792	792
HQNP-NCST / Nuclear Criticality Safety Training (DNFSB 97-2)	3,021	1,443	0
OPS/HQ-PP / Pollution Prevention	6,957	6,627	0
Subtotal	87,817	133,934	37,871
HQ-9999-01 / Contribution to Uranium Enrichment D&D Fund	419,076	420,000	442,000
Total, Multi-Site Activities	506,893	553,934	479,871

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Multi-Site	506,893	553,934	479,871	-74,063	-13.4%
Total, Multi-Site	506,893	553,934	479,871	-74,063	-13.4%

Site Description

Multi-Site

The Multi-Site program consists of several subprograms, which provide for technical support for integration activities, education, and training. The Multi-Site program covers activities that multiple sites benefit from and allows for cross complex solutions to be analyzed and discussed with stakeholders.

The role of the Multi-Site Federal effort is to provide leadership and support, establish and implement National and Departmental policy, conduct analyses and integrate activities across the various DOE sites. The Multi-Site program also supports education and training to improve the technical capability of the EM staff pursuant to Defense Nuclear Facilities Safety Board recommendations. This program also provides for technical assistance in assessing and establishing site baselines through data collection and analysis, all of which support the accelerated closure of EM sites. The Multi-Site program assesses the progress of the EM sites to track and report to Congress, interested stakeholders, and the public on the status of the program.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003

The scope planned for FY 2003 has been reviewed and is appropriate to meet the goals of the Multi-Site activities as outlined in the EM's sites baseline planning data. The funds requested for FY 2003 are appropriate to perform the activities based on a historical level of effort cost. No quantifiable corporate performance measures are associated with these projects.

HQ-EM5-ASP / Analytical Services Program 2,685 1,286 1,286

The Analytical Services Program activities include the National Analytical Measurement Program projects, that ensures the analytical laboratory data is technically and legally defensible and ensures effective environmental planning (e.g., data quality objectives process) linked through analytical systems to efficient data transfer, documentation, assessment, interpretation, and use to vindicate immediate and long-term EM program decisions.

- # Maintain oversight of EM's Consolidated Audit Program and ensure a minimum of 25 completed audits of commercial and internal DOE analytical laboratories.
- # Expand EM's Consolidated Audit Program audits to include DOE's on-site laboratories to demonstrate fair and equitable selection and treatment among laboratories selected for analytical service contracts.
- # Collaborate with the Environmental Protection Agency and the Department of Defense to complete and distribute Intergovernmental Federal Facility guidance establishing Quality Systems for environmental data collection, interpretation, and use for technologies.

- # Expand funding partnerships with the Department of Defense and the Environmental Protection Agency to enhance Systematic Planning/Decision Uncertainty training and meet program goal for courses presentations, to include at least one National meeting invitation.
- # Initiate a program to define requirements, coordinate activities, and integrate results for DOE participation in performance evaluation sample and sample/laboratory accreditation programs.

HQ-EM74 / Hazardous Waste Worker Training Program (HAZWOPER) 8,481 8,481 0

This activity provides worker training at DOE nuclear weapons facilities and related sites under the DOE Hazardous Worker Training Grant Program, which is administered by the National Institutes of Environmental Health Sciences. Funds to support hazardous waste worker training will be provided from operating funds available to each site.

- # No activity.

HQ-EM75 / Environmental and Regulatory Analysis 798 752 0

These activities support a team to promote cost efficiencies within the EM program by establishing effective lines of communication with programs and sites to identify and assist in resolving multi-site environmental and regulatory issues across the DOE complex. The team acts as the National Environmental Policy Act Compliance Officer to promote cost-effective compliance across the EM program.

- # This work will be performed by Federal employees.

HQ-LTS / Long-Term Stewardship Activities 8,000 8,000 1,000

The emerging mission of long-term stewardship within the Department provides a set of unique policy challenges as well as a requirement for extensive planning. The policy challenges include the development and implementation of: requirements and procedures for the transfer of sites into long-term stewardship; rigorous and redundant engineering and institutional controls; record keeping and information management requirements; decision-aiding tools for evaluating alternative cleanup scenarios and their impacts on stewardship; life-cycle cost estimation techniques; financial mechanisms for long-term stewardship; and, an effective management approach within the Department for enabling current and future missions within the constraints of safe and efficient long-term stewardship.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

The Department developed the Central Internet Database pursuant to the terms of a legally binding agreement that settled a lawsuit regarding the EM Programmatic Environmental Impact Statement. While the Central Internet Database was made available to the public in January 2000, it did not meet the requirements of the lawsuit and was not fully operational. The Central Internet Database contains data on the Department's waste, contaminated media, facilities, and spent nuclear fuel. There are no data calls associated with the Central Internet Database; all data is obtained from other Departmental information systems. The Department is obligated to maintain the system for at least six years from the time it is declared fully operational.

- # Establish policies for information management and record keeping that enable the Department to meet the unique challenges of long-term stewardship.
- # Review and analyze cleanup decisions with respect to long-term stewardship implications. Establish changes to procedures or processes to introduce stewardship considerations earlier in the decision-making processes.
- # Implement life-cycle cost estimating techniques for long-term stewardship that enable improved decision-making.
- # Evaluate financial options and alternative institutional approaches for ensuring adequate resources are available to meet long-term stewardship requirements.
- # Implement a Department-wide strategic plan for long-term stewardship.
- # Establish and implement corporate performance measures that can be used to both drive and evaluate the Department's success in long-term stewardship.
- # Implement a fully integrated Department-wide program plan for long-term stewardship.
- # Support the preparation of site-specific long-term stewardship plans at sites around the complex.
- # Develop information management/records storage requirements to enable the development and implementation of information management systems.
- # Much of the work will be performed by Federal employees.

HQ-PM-001 / Policy and Management 34,491 59,459 18,966

This activity provides the other contractual services funding required to plan, direct, and manage the EM program. Program activities encompass the Administrative Support area including support for the Assistant Secretary's staff; other contractual services necessary to accomplish program activities that include overall management; acquisition of education and training activities for the entire EM program; and environmental policy recommendations and planning activities.

- # Enhance Tribal, State, and local government participation in EM through the continuation of State and Tribal Governments Working Group, local officials exchange seminars, government-to-government relationships with the native American Tribes and grants of cooperative agreements with the National Governors Association.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

- # Establish recruitment, retention, and training programs to respond to Congressional/General Accounting Office/Inspector General/Defense Nuclear Facilities Safety Board recommendations.
- # Develop workforce planning scenarios to meet the challenges of an aging workforce and the needs of the EM program.
- # Provide analytical support for analysis of DOE/EM budget issues.
- # Conduct technical, regulatory, and policy analyses required for interactions with the regulators.
- # Conduct technical, regulatory, and policy analyses required for interactions with the Nuclear Regulatory Commission, the Environmental Protection Agency, other Federal agencies and State regulators.
- # Provide resources, expertise, and experience in the areas of safety, health and security; as well as in emergency management, package certification, quality assurance, analytical services, and risk management. Provide corporate safety conscience by providing technical assistance to the site teams and ensure constant vigilance throughout the system. Promote safety awareness; gather, compile, interpret, and report on safety information from the field; apply multi-disciplinary technical expertise where needed; and assist site teams and the field in fulfilling their safety responsibilities.
- # Instill safety awareness by utilizing the National Safety Council to conduct surveys, which will indicate whether and how EM's commitment to safety is working, assess top and middle management's perception of how safety functions within each organization, bring forward problems and matters of concern to gauge the effectiveness of Integrated Safety Management in EM.
- # Supports various Secretarial and Departmental initiatives, including the Retention Initiative, Defense Contract Audit Agency audits, integrated Safety Management implementation, and Environmental Management Advisory Board activities.
- # Provide support for critical Tribal involvement at various EM sites to minimize and/or avoid impacts to tribal cultural resources and various Tribal rights that are protected by treaties.
- # Provide support for Departmental requirements for the Facility Information Management System, Consolidated Account and Investment Systems, Government Industry Data Exchange Program, and the DOE Strategic Plan.
- # Provides support for the Corporate Information Database, which integrates into one system existing information on Departmental radioactive and non-radioactive waste, contaminated media and facilities, spent nuclear fuel, materials in inventory and toxic chemicals managed by DOE's Offices of Environmental Management, National Nuclear Security Administration, and Science and Nuclear Energy.
- # Much of the work will be performed by Federal employees or funded by the site budgets.

HQ-PM-PC / Policy and Management (Multi-Site)	**0**	**25,620**	**0**

(dollars in thousands)

FY 2001	FY 2002	FY 2003

The activities funded by this PBS provided EM and others the technical support required for congressional and Departmental initiatives associated with the EM program that surfaced during the year. Funds to support these activities will be provided from operating funds available to each site.

- # No activity.

HQ-TMHQ1 / Transportation and Packaging Management 11,100 10,568 10,568

The National Transportation Program develops and maintains the DOE baseline transportation resources, including the coordination and development of DOE-wide transportation policy to assure the availability of safe, regulatory compliant, economical, efficient transportation for DOE materials through: 1) the identification of transport needs of all the DOE programs, particularly in supporting EM focus on project acceleration and site closure; 2) resolution of transport issues at the program level; 3) maintenance of a corporate institutional program to interact with national and regional stakeholders; 4) vigorous examination of all projected DOE material flows; 5) conduct a forward-looking, aggressive transportation technology program to resolve complex transportation and packaging problems and address regulatory issues; and 6) operational support of packaging and shipping activities both on- and off-site (excluding weapons and weapon components, Naval Reactors shipments and commercial spent nuclear fuel).

- # Provide program integration and planning services for transportation activities across all DOE programs with a focus on radioactive waste and materials transportation.
- # Maintain, and upgrade as needed, automated systems to support the DOE field offices and contractor organizations in transportation operations (Automated Transportation Management System, Packaging Management Tracking System, TRANSNET, Prospective Shipment Module, TRANSCOM).
- # Maintain a high level of safety in DOE transportation operations.
- # Provide technical packaging and transportation assistance to resolve packaging issues, to identify packaging needs, and to develop packaging.
- # Corporate transportation plans in place for all commercial DOE radioactive material shipments.
- # Provide enhanced stakeholder outreach to states and tribes along DOE transportation corridors who currently receive minimal funds for transportation.

HQEM20 / Support to Integration and Disposition 7,942 7,559 3,559

(dollars in thousands)

FY 2001	FY 2002	FY 2003

The purpose of this project is to support the Office of Integration and Disposition mission to expedite site closure and project completion by providing Multi-Site services that ensure the timely, coordinated and cost-effective completion of the EM mission. Integration activities, crosscutting DOE/EM include spent nuclear fuel, nuclear materials stewardship, non-proliferation, legacy and remediation waste, deactivation, decommissioning and remediation, radioactive waste management, contaminated excess facility transfers, waste prevention, technology transfer and lessons learned. This project also provides technical expertise for the Waste Isolation Pilot Plant Transuranic Waste program.

- # Assess and audit field compliance with DOE Order 435.1, Radioactive Waste Management.
- # Maintain and update the Manifest Information Management System's Commercial low-level waste data base at the Idaho National Engineering and Environmental Laboratory.
- # Continue to support the Environmental Impact Statement identifying disposal options for “Greater-Than-Class-C Waste”.
- # Support planning and implementation with the National Nuclear Security Administration on immobilized plutonium waste forms.
- # Support the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program.
- # Perform Programmatic Environmental Assessment on Uranium Materials Management.
- # Support the National Facility Deactivation Initiative and the National Decommissioning Program to ensure more efficient decontamination and decommissioning.
- # Much of the work will be performed by Federal employees.

HQEM24 / Transportation Emergency Preparedness 1,956 1,865 1,000

The Department of Energy and its transportation activities have come under intense scrutiny from Congress, states, tribes, local governments and the public. Increased shipping activities will heighten issues related to transporting hazardous material, especially radioactive materials, and underline the need for verifiable and adequate emergency preparedness nationwide. A key issue in all transportation activities is responder readiness. The Transportation Emergency Preparedness Program addresses nationwide preparedness needs, and assists DOE, other Federal, state, tribal, and local authorities to prepare for response to a transportation incident involving DOE radioactive material shipments.

- # Coordinate emergency response roles, responsibilities, capabilities, notification procedures, and information needs with state and tribal government along DOE transportation corridors
- # Provide the Transportation Emergency Preparedness Program planning tools to state and tribal authorities to assist them in planning and preparing for response to transportation accidents/incidents.
- # Coordinate with site transportation programs for the various shipments to include plans, procedures, exercise and training.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

- # Ensure emergency preparedness is addressed in transportation plans for shipping campaigns originating in their region.
- # Coordinate information with the Transportation Emergency Preparedness Program coordinators in other regions affected by shipping routes that traverse multi-region transportation corridors.
- # Coordinate with the Federal Emergency Management Agency on local and tribal initiatives.

HQEM30 / Support to Site Closure 1,082 1,036 500

The activities funded by this project include a variety of crosscutting efforts that support required Environmental Management Site Closure activities and other DOE initiatives. Technical support is provided in the areas of performance measure tracking; information/data management integration; project review/analysis; and other cleanup related requirements.

- # Continue technical support to the Office of Site Closure performance measure tracking and data analysis, and other data management integration efforts.
- # Support interagency agreements with the Environmental Protection Agency, the General Services Administration, and the VOLPE National Transportation Systems Center for activities dealing with project review/baselining efforts, strategic/management plans, cost/schedule improvement efforts, and business management practices related to final closure of sites under the responsibility of the Office of Site Closure.
- # Support for Headquarters directed crosscutting activities carried out by the various field offices to support EM-wide integration, budget, and planning initiatives.
- # Much of the work will be performed by Federal employees.

HQEM40 / Support to Project Completion 466 446 200

Funding for these activities will assure that technical and managerial efforts associated with field support for Office of Project Completion sites will continue. This will include technical expertise and assistance to Federal staff responsible for overseeing and assessing site activities. These activities will include: successful site waste management and environmental restoration project completion activities, high-level waste storage tank safety issues, nuclear material and stabilization surveillance activities, site safety and health reviews and analysis, activities associate with Environmental Impact Statements and Records of Decision. This support will help Federal staff meet its objectives of having technical expertise needed to manage programmatic goals, while stressing the continued need to reduce unnecessary costs as work progresses.

- # Conduct analyses and reviews in response to the Defense Nuclear Facilities Safety Board recommendations.
- # Implement Headquarters responsibilities under DOE Order 435.1, Radioactive Waste Management; and DOE Policy 450.5, Line Environment, Safety and Health Oversight.

- # Conduct peer review of performance assistance of DOE low-level waste disposal sites.
- # Much of the work will be performed by Federal employees.

HQEM5 / Emergency Preparedness Program 838 792 792

The Emergency Management Program encompasses all emergency management activities under the purview of the Office of Environmental Management. These responsibilities include overall emergency management policy development and oversight for EM sites and facilities, planning, training and exercising for EM's Emergency Management Team representatives, providing for emergency notification for EM management personnel, and oversight of the DOE wide transportation related emergency activities. The focus of emergency management program policy development activities is intended to ensure that EM sites, facilities and Headquarters are ready to respond to emergencies in coordinated fashion.

- # Provide for an effective Headquarters response for both facility and transportation related emergencies.
- # Complete four on-site emergency management oversight reviews in coordination with the Office of Emergency Management.
- # Plan for Headquarters participation in all field emergency response exercises.
- # Develop EM emergency management policy, programmatic guidance.
- # Operate and maintain the Headquarters EM emergency notification capability.
- # Implement the EM Headquarters Emergency Response Plan and procedures.
- # Review Emergency Readiness Assurance Plans to ensure that EM sites/facilities are prepared to respond efficiently and effectively to all emergencies.
- # Implement planned continuity of operations activities as planned in FY 2002.

HQNP-NCST / Nuclear Criticality Safety Training (DNFSB 97-2) 3,021 1,443 0

This activity provides support to the Nuclear Criticality Safety Training program. The Implementation Plan for Recommendation 93-2, "The Need for Critical Experiment Capability," established a program to maintain the viability of the Department's critical experiments program and improve the knowledge base underlying prediction of criticality. Ongoing activities have been included under the program established for the Defense Nuclear Facilities Safety Board Recommendation 97-2, Nuclear Criticality Safety Training, which supports the efficient integration and functioning of criticality safety programs across all DOE operations involving fissile materials.

- # No activity.

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
OPS/HQ-PP / Pollution Prevention	**6,957**	**6,627**	**0**

The Department's pollution prevention mission is to reduce or eliminate all wastes and pollutants in order to minimize the impact of the Department's operations on the environment, to reduce operational cost, and improve the safety and health of its operations. Pollution prevention is the Department's preferred approach to reducing waste, mitigating health risks, and protecting the environment, in accordance with the Pollution Prevention Act of 1990. This was evidenced by the former Secretary's November 1999 establishment of aggressive source reduction, recycling, and affirmative procurement goals, to be achieved by 2005. Funds to support pollution prevention activities will be provided from operating funds available to each site.

No activity.

Subtotal, Multi-Site	87,817	133,934	37,871
HQ-9999-01 / Contribution to the Uranium Enrichment D&D Fund	**419,076**	**420,000**	**442,000**

The Energy Policy Act of 1992 created the Uranium Enrichment Decontamination and Decommissioning Fund to pay for the cost of cleanup of the gaseous diffusion facilities located in Oak Ridge, Tennessee; Paducah, Kentucky; and Portsmouth, Ohio. The fund also covers the Federal cost to reimburse operating uranium or thorium processing site licensees for the costs of their environmental cleanup at designated sites, subject to a specific reimbursement limit. The Department compensates site owners on a per-ton basis for the restoration costs for those tailings attributable to the Federal government.

The Act authorizes annual fund contributions of $480,000,000, adjusted for inflation, from two sources: up to $150,000,000 from a special assessment on domestic utilities based on the ratio of their separative work unit purchases from the Department to total purchases from the Department including those produced for defense purposes, with the remainder of required funding to come from annual Congressional appropriations. The purpose of this activity is to provide the annual Government contribution.

Provide the FY 2003 Federal Government contribution to the Decontamination and Decommissioning Fund, as required by the Energy Policy Act of 1992.

Total, Multi-Site	**506,893**	**553,934**	**479,871**

Explanation of Funding Changes

	FY 2003 vs. FY 2002 ($000)
HQ-EM74 / Hazardous Waste Worker Training Program (HAZWOPER)	
# Decrease reflects transfer of activities to individual sites.	-8,481
HQ-EM75 / Environmental and Regulatory Analysis	
# This work will be performed by Federal employees.	-752
HQ-LTS / Long-Term Stewardship Activities.	
# Reflects reduction in funding for site record keeping and information management activities from a cleanup orientation to those required for long-term stewardship and continued review, analysis, and improvement of long-term stewardship activities. Reduction also reflects transfer of operations and maintenance of sites in long-term stewardship to the Grand Junction Office. Much of the work will be performed by Federal employees.	-7,000
HQ-PM-001 / Policy and Management	
# Decrease in funding reflects the need to support congressional and Departmental initiatives, and higher priority program activities. Much of this work will be performed by Federal employees.	-40,493
HQ-PM-PC / Policy and Management (Multi-Site)	
# Activities were completed in FY 2002.	-25,620
HQ-EM20 / Support to Integration and Disposition	
# Much of the work will be performed by Federal employees.	-4,000
HQ-EM24 / Transportation Emergency Preparedness	
# In FY 2003, the administration proposes to reduce this project to permit EM to accelerate risk reduction elsewhere.	-865
HQ-EM30 / Support to Site Closure	
# Much of the work will be performed by Federal employees.	-536
HQ-EM40 / Support to Project Completion	
# Much of the work will be performed by Federal employees.	-246
HQNP-NCST / Nuclear Criticality Safety Training	
# In FY 2003, the administration proposes to eliminate this project to permit EM to accelerate risk reduction elsewhere.	-1,443
OPS/HQ-PP / Pollution Prevention	
# Decrease reflects transfer of activities to individual sites.	-6,627
HQ-9999-01 / Contribution to the Uranium Enrichment D&D Fund	
# Increase reflects the backlog of unpaid contributions and adjustment for inflation.	22,000

	FY 2003 vs. FY 2002 ($000)
Total Funding Change, Multi-Site	-74,063

Safeguards and Security

Program Mission

The Office of Environmental Management's (EM) domestic Safeguards and Security program, within the Defense Environmental Restoration and Waste Management appropriation account, provides funding for safeguards and security activities at EM's landlord sites, specifically Savannah River (except the Tritium facilities), Richland, Idaho, Grand Junction, Argonne National Laboratory-West, Carlsbad/Waste Isolation Pilot Plant, West Valley Demonstration Project, East Tennessee Technology Park, Paducah Gaseous Diffusion Plant, and the Portsmouth Gaseous Diffusion Plant.

The non-closure EM sites are engaged in environmental restoration, waste management, and related scientific and environmental research. These sites provide the Nation with innovative nuclear technologies and unique scientific and engineering capabilities in non-nuclear programs that provide commercialization potential or enhance the quality of the environment. An addition to some site missions in recent years is the receipt, storage, management, and ultimate disposal of foreign and domestic research reactor spent nuclear fuel.

Some EM facilities secure large amounts of weapons grade special nuclear materials left over from the cold war production program. In many cases, these materials are weapons-usable with little additional processing. Material processing activities are now restricted to those processing activities required for waste disposition, safe storage, or offsite shipment. Therefore, while these facilities continue to require stringent materials protection and control programs, safeguards requirements do not currently mandate extensive materials characterization and accounting programs. Environmental Management sites continue to store a wide array of special nuclear materials from pure metals and oxides to spent nuclear fuel and transuranic wastes. This extensive diversity of material necessitates a graded approach to safeguards and security. The graded approach provides varying degrees of physical protection, accountability, and material control to different types, quantities, physical forms, and chemical or isotopic composition of nuclear materials consistent with the risks and consequences associated with threat scenarios. These sites are involved in long-term transition to deactivate old weapons production and nuclear energy facilities, requiring decontamination and decommissioning activities to eliminate and stabilize hazardous materials.

Characteristically, these facilities have “Islands of Security” using protective force personnel and access control systems, rather than large site-wide security perimeters. The protective forces are typically composed of Security Police Officer Levels 1 and 2. Their duties range from manning fixed posts for access control, routine security patrols and law enforcement type response requirements. Several of these sites have requirements for Level 3 trained and qualified protective forces. This is due to weapons-grade material still resident at those facilities, which requires higher skill levels. The “Islands of Security” make the remainder of the site more accessible to uncleared contractors and allows for reduced access control requirements and conversely reduced security costs. These sites typically have more personnel with “L” level access authorizations than “Q” level and thus only limited numbers of personnel are enrolled in human reliability programs. The electronic security systems, while still robust and effective, do not require the additional levels of protection demanding biometrics. Classified holdings generally consist of information up to and including Secret Restricted Data.

Program Strategic Performance Goals

The goal of the Safeguards and Security program is to provide adequate protection while meeting various mission responsibilities in a technically sound and cost-effective manner. The EM program will:

- Perform security assessments to evaluate present and future security requirements.
- Correct any identified safeguards and security inadequacies.
- Provide levels of protection in a tailored manner commensurate with potential risks.
- Maintain balance between EM’s security and operation mission.

At the programmatic level, these requirements are reflected in “corporate” performance measure and key milestone reporting and tracking. The EM management uses the corporate performance measures along with other site-specific and project-specific objectives on an annual basis to ensure that progress is being made toward EM’s goal of site closure and project completion.

Significant Accomplishments and Program Shifts

- In FY 2003, security mission at the various sites may necessitate shifts in operational needs from a project and security standpoint. Flexibility will be required to accommodate these changing needs.
- In FY 2003, the Argonne National Laboratory-West is transferred from the Office of Science to EM to ensure adequate resources for a cost-effective security program to meet DOE’s safeguards and security requirements.

Funding Profile

(dollars in thousands)

	FY 2001 Comparable Appropriation	FY 2002 Original Appropriation	FY 2002 Adjustments	FY 2002 Comparable Appropriation	FY 2003 Request
Safeguards and Security	215,893	213,219	8,200	221,419	228,260
Total, Defense Safeguards and Security	215,893	213,219	8,200	221,419	228,260

Public Law Authorization:

Public Law 95-91, “Department of Energy Organization Act (1977)”

Public Law 96-368, “West Valley Demonstration Project Act of 1980"

Public Law 103-62, “Government Performance and Results Act of 1993"

Public Law 106-398, “The National Defense Authorization Act for Fiscal Year 2001"

Public Law 107-66, “The Energy and Water Development Appropriations Act 2002"

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Carlsbad Field Office/WIPP	2,798	2,550	2,506	-44	-1.7%
Idaho					
Argonne National Laboratory-West	6,668	7,598	6,769	-829	-10.9%
Grand Junction Office	422	228	589	361	158.3%
Idaho National Engineering and Environmental Laboratory	34,380	34,346	36,449	2,103	6.1%
Total, Idaho	41,470	42,172	43,807	1,635	3.9%
Oak Ridge					
East Tennessee Technology Park	11,435	11,476	13,164	1,688	14.7%
Paducah	3,170	2,408	6,849	4,441	184.4%
Portsmouth	8,274	7,449	11,917	4,468	60.0%
Total, Oak Ridge	22,879	21,333	31,930	10,597	49.7%
Ohio					
West Valley	1,977	1,395	2,210	815	58.4%
Richland Operations Office	53,036	54,844	54,654	-190	-0.3%
Savannah River Operations Office	93,733	99,125	93,153	-5,972	-6.0%
Sub-total, Defense Environmental Restoration and Waste Management, Safeguards and Security	215,893	221,419	228,260	6,841	3.1%
Less: Security Charge for Reimbursable Work	-5,718	-5,843	-4,347	1,496	-25.6%
Total, Defense Environmental Restoration and Waste Management, Safeguards and Security	210,175	215,576	223,913	8,337	3.9%

Detail Funding Profile

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Carlsbad Field Office/Waste Isolation Pilot Plant					
Protective Forces	2,443	2,432	2,390	-42	-1.7%
Physical Security Systems	44	0	0	0	0.0%
Information Security	163	0	0	0	0.0%
Program Management	118	118	116	-2	-1.7%
Subtotal	2,768	2,550	2,506	-44	-1.7%
Personnel Security	30	0	0	0	0.0%
Total, Carlsbad Area Office	2,798	2,550	2,506	-44	-1.7%
Idaho/Argonne National Laboratory-West					
Protective Forces	3,609	3,900	3,758	-142	-3.6%
Physical Security Systems	1,673	2,304	1,574	-730	-31.7%
Transportation	77	0	0	0	0.0%
Information Security	210	212	225	13	6.1%
Material Control and Accountability	599	683	726	43	6.3%
Program Management	329	324	300	-24	-7.4%
Subtotal	6,497	7,423	6,583	-840	-11.3%
Cyber Security	29	31	33	2	6.5%
Personnel Security	142	144	153	9	6.3%
Total, Idaho/Argonne National Laboratory-West	6,668	7,598	6,769	-829	-10.9%
Idaho/Grand Junction Office					
Protective Forces	197	0	0	0	0.0%
Physical Security Systems	54	86	222	136	158.1%
Program Management	80	56	144	88	157.1%
Subtotal	331	142	366	224	157.7%
Cyber Security	80	75	193	118	157.3%
Personnel Security	11	11	30	19	172.7%
Total, Idaho/Grand Junction Office	422	228	589	361	158.3%

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Idaho Operations Office					
Protective Forces	19,163	19,340	20,378	1,038	5.4%
Physical Security Systems	6,289	6,381	6,302	-79	-1.2%
Information Security	1,208	1,060	1,046	-14	-1.3%
Material Control and Accountability	2,078	2,073	2,045	-28	-1.4%
Program Management	1,063	1,150	1,134	-16	-1.4%
Subtotal	29,801	30,004	30,905	901	3.0%
Cyber Security	2,954	2,735	3,958	1,223	44.7%
Personnel Security	1,625	1,607	1,586	-21	-1.3%
Total, Idaho Operations Office	34,380	34,346	36,449	2,103	6.1%
Oak Ridge/East Tennessee Technology Park					
Protective Forces	7,116	7,116	8,167	1,051	14.8%
Physical Security Systems	1,308	1,322	1,515	193	14.6%
Information Security	899	914	1,048	134	14.7%
Material Control and Accountability	567	581	667	86	14.8%
Program Management	434	435	499	64	14.7%
Subtotal	10,324	10,368	11,896	1,528	14.7%
Cyber Security	730	724	829	105	14.5%
Personnel Security	381	384	439	55	14.3%
Total, Oak Ridge/East Tennessee Technology Park	11,435	11,476	13,164	1,688	14.7%
Oak Ridge/Paducah					
Protective Forces	1,175	1,346	3,832	2,486	184.7%
Physical Security Systems	411	120	341	221	184.2%
Information Security	1,219	591	1,680	1,089	184.3%
Material Control and Accountability	158	174	494	320	183.9%
Program Management	134	116	329	213	183.6%
Subtotal	3,097	2,347	6,676	4,329	184.4%
Personnel Security	73	61	173	112	183.6%
Total, Oak Ridge/Paducah	3,170	2,408	6,849	4,441	184.4%

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Oak Ridge/Portsmouth					
Protective Forces	5,965	5,953	9,526	3,573	60.0%
Physical Security Systems	135	82	131	49	59.8%
Information Security	902	304	486	182	59.9%
Material Control and Accountability	433	433	693	260	60.0%
Program Management	588	588	940	352	59.9%
Subtotal	8,023	7,360	11,776	4,416	60.0%
Cyber Security	160	15	23	8	53.3%
Personnel Security	91	74	118	44	59.5%
Total, Oak Ridge/Portsmouth	8,274	7,449	11,917	4,468	60.0%
Ohio/West Valley					
Protective Forces	1,017	215	1,062	847	394.0%
Physical Security Systems	30	0	0	0	0.0%
Program Management	560	560	546	-14	-2.5%
Subtotal	1,607	775	1,608	833	107.5%
Cyber Security	370	620	602	-18	-2.9%
Total, Ohio/West Valley	1,977	1,395	2,210	815	58.4%
Richland Operations Office					
Protective Forces	22,756	24,626	23,441	-1,185	-4.8%
Physical Security Systems	6,169	7,710	7,654	-56	-0.7%
Information Security	3,706	3,782	3,959	177	4.7%
Material Control and Accountability	2,765	2,685	2,682	-3	-0.1%
Program Management	12,311	10,944	12,309	1,365	12.5%
Subtotal	47,707	49,747	50,045	298	0.6%
Cyber Security	2,346	2,315	1,752	-563	-24.3%
Personnel Security	2,983	2,782	2,857	75	2.7%
Total, Richland Operations Office	53,036	54,844	54,654	-190	-0.3%

	(dollars in thousands)				
	FY 2001	FY 2002	FY 2003	$ Change	% Change
Savannah River Operations Office					
Protective Forces	50,663	54,941	51,657	-3,284	-6.0%
Physical Security Systems	10,993	11,787	10,758	-1,029	-8.7%
Information Security	1,991	1,495	1,378	-117	-7.8%
Material Control and Accountability	3,710	4,093	3,736	-357	-8.7%
Program Management	21,522	20,589	19,883	-706	-3.4%
Subtotal	88,879	92,905	87,412	-5,493	-5.9%
Cyber Security	2,321	2,273	2,084	-189	-8.3%
Personnel Security	2,533	3,947	3,657	-290	-7.3%
Total, Savannah River Operations Office	93,733	99,125	93,153	-5,972	-6.0%
Subtotal, Defense Safeguards and Security	215,893	221,419	228,260	6,841	3.1%
Less: Security Charge for Reimbursable Work	-5,718	-5,843	-4,347	1,496	-25.6%
Total, Defense Environmental Restoration and Waste Management, Safeguards and Security	210,175	215,576	223,913	8,337	3.9%

Carlsbad

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Safeguards and Security program carried out by the Carlsbad Field Office, is to provide security services to the facilities, properties, and programs at the Waste Isolation Pilot Plant in its mission to safely dispose of DOE defense generated transuranic waste.

Program Goal

The goal is to provide a security program that includes management administration and planning, inspection, self-assessment and a documentation program implementing the requirements of DOE-Orders and policies for security disciplines. This will include staffing, and liaison with local authorities to address threats identified in security assessments and comply with the DOE-approved Waste Isolation Pilot Plant Security Plan.

Program Objectives

The program objectives include, but are not limited to:

- Perform security assessments to evaluate present and future security needs for the Waste Isolation Pilot Plant facilities.
- Provide for a certified contractor counterintelligence office.
- Provide a Personnel Security Program.
- Provide a trained protective force.
- Provide for security awareness.
- Provide a drug detection and incident program.
- Comply with the DOE-approved Waste Isolation Pilot Plant Security Plan.

Significant Accomplishments and Program Shifts

- Security missions may necessitate shifts in operational needs from a project and security standpoint. Flexibility will be required to accommodate these changing needs.

Complete facility modification and receive regulatory approvals to initiate the receipt of remote-handled transuranic waste.

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
CB-SS-D / Carlsbad Safeguards and Security	2,798	2,550	2,506
Total, Carlsbad	2,798	2,550	2,506

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Waste Isolation Pilot Plant	2,798	2,550	2,506	-44	-1.7%
Total, Carlsbad	2,798	2,550	2,506	-44	-1.7%

Site Description

Waste Isolation Pilot Plant

The Waste Isolation Pilot Plant is the nationally designated repository for defense generated transuranic radioactive waste. The Plant is situated on a 10,240-acre reserve located in the southeastern corner of New Mexico, about 26 miles east of Carlsbad, New Mexico. Its mission is to safely dispose of DOE's defense generated transuranic waste.

Detailed Program Justification

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
CB-SS-D / Carlsbad Safeguards and Security	**2,798**	**2,550**	**2,506**
Physical Security	2,768	2,550	2,506

(dollars in thousands)

FY 2001	FY 2002	FY 2003

- Protective Forces - The security program has been developed to meet or exceed applicable DOE security requirements, as detailed in DOE-Albuquerque Orders and supplements. The security program addresses threats that are identified in security assessments and complies with the DOE/Carlsbad Field Office approved Waste Isolation Pilot Plant Security Plan. The Waste Isolation Pilot Plant is designated a Property Protection Area and is subject to physical protection criteria contained with DOE Order 5632.1C, Protection and Control of Safeguards and Security Interests. This activity includes, but is not limited to, salaries, overtime, benefits, materials and supplies, equipment and facilities, training, communications, equipment, and management.
- Security Protection Systems - The Waste Isolation Pilot Plant is designated a Property Protection Area and is subject to physical protection criteria contained within DOE Order 5632.1C, Protection and Control of Safeguards and Security Interests. The physical security protection systems criteria includes barriers, secure storage, locks, and entry and access controls. Performance testing, intrusion detection and assessment, explosive detection, vital components and tamper safe monitoring, and escorts are not required at the Waste Isolation Pilot Plant site. The Waste Isolation Pilot Plant Property Protection Area contains a perimeter fence that is maintained and inspected periodically. The barrier contains one main entrance/egress, which is manned 24 hours, and three alternate entrances/egresses, which are locked unless work is in progress or an emergency requires access. During those circumstances the entrances/egresses are manned. The Plant's site maintains a key, lock, and combination control system. The key, lock, and combination support is also provided at the Plant's facilities located in town. This system includes facility doors, file cabinet locks, desk locks, gates, etc. Entry and access controls are administered at the Waste Isolation Pilot Plant site for personnel and vehicle access. For personnel access, the DOE standard identification system is in place and complies with DOE Order 5632.1C. The system provides a visible means of identifying authorized personnel entering or leaving the facilities. Hand carried articles are subject to random inspections as selected using a randomizer.
- Information Systems - The Waste Isolation Pilot Plant site does not contain classified materials and has obtained a waiver from the Operational Security program. The Waste Isolation Pilot Plant site maintains an information security program for foreign travel. All official foreign travel by DOE and contractors is approved locally and entered into the Foreign Travel Management System for Headquarters final approval. The Waste Isolation Pilot Plant maintains a computer security program. The site has designated an Information System Site Security Manager per OMB Circular A-130,Computer Security Act, and DOE Notices 205.1, 205.2, and 205.3. The Information System Site Security Manager is responsible for implementing the computer Protection Plan; mandates the course of action to address OMB Circular A-130, and privacy act compliance at the Waste Isolation Pilot Plant site; ensures adherence to OMB Circular A-130; and develops a risk based, cost effective approach to an unclassified computer security program policy.

	(dollars in thousands)		
	FY 2001	FY 2002	FY 2003

Program Management - The Waste Isolation Pilot Plant security program provides security services for all site facilities, properties, and programs. The security program addresses threats identified security assessments and complies with the DOE approved security plan. Management of the DOE/Carlsbad Field Office approved security programs includes planning, implementation, and administration of physical and intellectual security for the Waste Isolation Pilot Plant site and facilities. Other responsibilities include: professional development and training for the officers and staff; inspections, surveys, or assessments; maintaining compliance with regulations; providing responses to management requests regarding foreign ownership, control or influence; serving as a liaison with the Federal Bureau of Investigation, District Attorney, State police, county sheriffs, and other local law enforcement entities regarding security and law enforcement for the Waste Isolation Pilot Plant complex; developing contract statements of work, performance measures and indicators; and serving as the contractor counterintelligence officer for the Waste Isolation Pilot Plant governmental agencies for Memorandums of Understanding, Joint Powers Agreement, Mutual Aid Agreements, and other cooperative agreements regarding security.

Personnel Security	30	0	0

The Waste Isolation Pilot Plant site maintains a clearance program in accordance with DOE Order 472.1B, Personnel Security Activities. Its security prepares all of the required documentation for processing a clearance. Upon clearance approval, the Waste Isolation Pilot Plant security provides a comprehensive security briefing and completes the required documentation. The site maintains a Security Awareness program for the cleared personnel as required by DOE Order 470.1, CRD Contractor Safeguards and Security Program Requirements.

Visit control is administered by the Waste Isolation Pilot Plant security utilizing the DOE standard identification system. Visits are monitored and controlled by a log in/out system. Visitor badges and instructions are provided by the Waste Isolation Pilot Plant security. Escorts supporting visitors are provided instructions by the Waste Isolation Pilot Plant security and are required to report problems or issues immediately.

Total, Carlsbad	**2,798**	**2,550**	**2,506**

Explanation of Funding Changes

	FY 2003 vs. FY 2002 ($000)
CB-SS-D / Carlsbad Safeguards and Security	
# No significant change.	-44

Total Funding Change, Carlsbad	-44

Idaho

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Safeguards and Security program carried out by the Grand Junction Office, is to ensure appropriate levels of protection for Grand Junction facilities and the Argonne National Laboratory-West against unauthorized access and other hostile acts that may cause unacceptable impacts on national security or on the health and safety of employees, the public, or the environment.

The mission carried out by the Idaho Operations Office, is to support environmental restoration, waste management, and related scientific and environmental research programs at the Idaho National Engineering and Environmental Laboratory. The Idaho National Engineering and Environmental Laboratory provides the nation with innovative nuclear technologies, and unique scientific and engineering capabilities in non-nuclear programs that furnishes commercial potential or enhance the quality of the environment. Some areas of primary emphases are nuclear reactor technology research and development, development of waste management technologies, technology transfer and non-nuclear research and development projects. A recent addition to the Idaho National Engineering and Environmental Laboratory mission is the receipt, storage, management, and ultimate disposal of foreign and domestic research reactor spent nuclear fuel.

The Idaho National Engineering and Environmental Laboratory facilities secure large amounts of special nuclear fuel. Material processing activities are now restricted to that processing required for waste disposition, safe storage or off-site shipment. The Idaho National Engineering and Environmental Laboratory continues to implement stringent materials protection and control programs. The wide diversity of materials necessitates a graded approach to safeguards and security. This concept is designed to provide varying degrees of physical protection, accountability, and material control to different types, quantities, physical forms, and chemical or isotopic composition of nuclear materials consistent with the risks and consequences associated with threat scenarios.

The Idaho National Engineering and Environmental Laboratory has changed from large site-wide security perimeters to Islands of Security protected by protective forces. The protective forces are made up of Security Police Officers II and III. Their duties range from manning fixed posts for access control to routine security patrols and special response forces for protecting Category I and II quantities of special nuclear material. The Islands of Security make the remainder of the site more accessible to uncleared employees and contractors for reduced access control requirements and conversely reduced security costs. It also allows reduction of clearances and reduces the number of personnel requiring enrollment in human reliability programs. The security alarm systems are required to be robust and effective to ensure adequate protection levels. Classified holdings generally consist of information up to and including Secret Restricted Data.

Program Goal

The safeguards and security goal at the Grand Junction Office and at the Argonne National Laboratory-West is to ensure adequate resources for a cost-effective security program to meet DOE's safeguards and security requirements.

The safeguards and security goal for the Idaho National Engineering and Environmental Laboratory is to ensure adequate resources cost-effective security programs to meet DOE's safeguards and security requirements. This includes protection of nuclear materials, classified and unclassified sensitive information, and numerous facilities in accordance with the Site Safeguards and Security Plan.

Program Objectives

The objective of the safeguards and security program at the Grand Junction Office, the Argonne National Laboratory-West, and the Idaho National Engineering and Environmental Laboratory is to protect personnel and property at a level consistent with the risk. Since Grand Junction has no classified material and clearances are not needed to access any location on-site, the risk is low.

Significant Accomplishments and Program Shifts

- With the transition of the Grand Junction Office site to a private entity in February 2001, the safeguards and security program changed. The site now has an "open campus" concept. However, some level of security is needed, for nights and weekends when there are few people on the site. Card readers and intrusion alarms have been installed on all entrances to the buildings DOE occupies. Cyber security is being provided at the same level. Badging is still required for all employees and visitors.
- Received satisfactory rating on the DOE Office of Assessment Security Survey at the Idaho National Engineering and Environmental Laboratory.
- Renegotiated the Protective Forces Union contract for the period of May 28, 2000, through August 28, 2005, at the Idaho National Engineering and Environmental Laboratory.
- Updated the Idaho National Engineering and Environmental Laboratory Site Safeguards and Security Plan.
- Updated the Material Control and Accountability Plan at the Idaho National Engineering and Environmental Laboratory.
- Established a cyber security technical program and implemented major new requirements in the past two years at the Idaho National Engineering and Environmental Laboratory.
- Beginning in FY 2003, the Argonne National Laboratory-West is transferred from the Office of Science to Environmental Management.

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
ID-SS-D-ANLW / ANL-W Safeguards and Security	6,668	7,598	6,769
IDGJ-SS-D / Grand Junction Safeguards and Security	422	228	589
ID-SS-D / Idaho Safeguards and Security	34,380	34,346	36,449
Total, Idaho	41,470	42,172	43,807

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Argonne National Laboratory - West	6,668	7,598	6,769	-829	-10.9%
Grand Junction Office	422	228	589	361	158.3%
Idaho National Engineering and Environmental Laboratory	34,380	34,346	36,449	2,103	6.1%
Total, Idaho	41,470	42,172	43,807	1,635	3.9%

Site Description

Argonne National Laboratory - West

The Argonne National Laboratory - West site is located 35 miles west of Idaho Falls, Idaho. The current mission for the laboratory includes technology development for spent nuclear fuel and radioactive waste treatment, and reactor and fuel cycle safety.

Grand Junction Office

The Grand Junction Office is located in the Grand Valley of western Colorado on a 56-acre site adjacent to the Gunnison River and immediately south of the city of Grand Junction. The office provides the scientific, technical, engineering and project integration skills to support national environmental restoration, geophysical, and energy programs. Its mission is to perform environmental remediation and long-term surveillance activities across the DOE complex; provide quality services supporting other DOE and Federal missions in a safe, cost-effective, and efficient manner; and perform long-term environmental stewardship of inactive and surplus DOE facilities. When the site transferred to a private entity in February 2001, the safeguards and security program changed, but the Grand Junction Office mission has remained the same.

Idaho National Engineering and Environmental Laboratory

The Idaho Operations Office is responsible for ensuring that the facilities under its cognizance, primarily Idaho National Engineering and Environmental Laboratory, meet all DOE safeguards and security requirements. The Idaho National Engineering and Environmental Laboratory covers 571,000 acres in a rural, sparsely populated sector of southeastern Idaho. The eastern boundary is 23 miles west of Idaho Falls. The Idaho National Engineering and Environmental Laboratory also occupies numerous buildings in Idaho Falls. The Laboratory is a multi-program laboratory whose primary mission is to provide the nation with innovative nuclear technologies and with unique scientific and engineering capabilities in non-nuclear programs that provide commercialization potential or enhance the quality of the environment. Areas of primary emphasis include waste management and environmental restoration, advanced energy production, defense-related support, safety and health, technology transfer, education, and non-nuclear research and development projects.

Detailed Program Justification

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
ID-SS-D-ANLW / Argonne National Laboratory-West			
Safeguards and Security	**6,668**	**7,598**	**6,769**
Physical Security	6,497	7,423	6,583

- **#** Physical Protective Forces - provides for security guards, management, and or supervision, training and equipment needed for effective performance of protection tasks during normal and emergency conditions.
- **#** Physical Security Protection Systems - provides for equipment to protect vital security interests and government property per the local threat. Equipment and hardware includes fences, barriers, lighting, sensors, entry control devices, etc. This hardware and equipment is generally operated and used to support the protective guard mission as well.
- **#** Information Security - ensures that materials and documents, that may contain sensitive or classified information, are accurately and consistently identified, properly reviewed for content, appropriately marked and protected from unauthorized disclosure, and ultimately destroyed in an appropriate manner.
- **#** Material Control and Accountability - provides for the control and accountability of special nuclear materials, including training and development for assessing the amounts of material involved in package items, process systems and wastes. Additionally, this activity documents that a theft, diversion or operational loss of special nuclear material has not occurred. Also included is on-site and off-site transport of special nuclear materials in accordance with mission, environmental and safety requirements.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

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

Cyber Security	29	31	33

Ensures that sensitive and classified information that is electronically processed or transmitted is properly identified, protected, and tested and that all electronic systems have an appropriate level of infrastructure reliability and integrity.

Personnel Security	142	144	153

Includes clearance program, security education and awareness for employees, and visitor control. This is accomplished through initial and termination briefings, re-orientations, computer based training, special workshops, publications, signs, and posters.

IDGJ-SS-D / Grand Junction Safeguards and Security	**422**	**228**	**589**
Physical Security	331	142	366

Provides support for operational and security equipment, procedures used to protect facilities, information documents and/or material against theft, sabotage, diversion, or other criminal acts. This includes program management, physical security protection systems, and physical protective forces.

Cyber Security	80	75	193

Provides for cyber security processes, methods, and tools to support certification and accreditation of secure and sensitive enterprise networks; continue implementation of low-risk technologies; support computer security, communications security and cyber infrastructure.

Personnel Security	11	11	30

Provide technical and administrative support for access authorization, personnel security assurance program, safeguards and security awareness, special access program, site/facility access programs, and control of visits.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

ID-SS-D / Idaho Safeguards and Security 34,380 34,346 36,449

This program is responsible for the entire Safeguards and Security Program at the Idaho National Engineering and Environmental Laboratory.

Physical Security 29,801 30,004 30,905

- **#** Physical Protective Forces - provides protection of safeguards and security interests from theft, diversion, industrial sabotage, radiological sabotage, toxicological sabotage, espionage, unauthorized access, loss, compromise, and other hostile acts, which may cause unacceptable adverse impacts on national security, program continuity, and the health and safety of employees, the public, or the environment.
- **#** Physical Security Protection Systems - ensure special nuclear material and classified matter is adequately protected; maintain the Central Alarm Stations; install and maintain the intrusion detection and assessment systems; perform corrective and preventive maintenance on vehicle barriers and security fencing around Building CPP-651; provide engineering support, system administration, and corrective and preventive maintenance for the entry and access control systems at the Idaho National Engineering and Environmental Laboratory; and maintain a performance testing program and conduct Force-on-Force exercises to ensure the effectiveness of the Idaho National Engineering and Environmental Laboratory electronic and mechanical security systems.
- **#** Information Security - ensure classified and sensitive unclassified matter is adequately protected by providing classified matter protection and control, classification/declassification activities, technical surveillance countermeasures, and operations security.
- **#** Material Control and Accountability - manage, control, and account for all nuclear material within applicable DOE and Nuclear Regulatory Commission requirements. This is accomplished through a graded program that provides varying degrees of physical protection, accountability, and material control for varied levels of attractive materials by restricting access of nuclear material to possible adversaries.
- **#** Program Management - ensures spent nuclear fuel classified and sensitive unclassified matter, and government property are adequately protected by providing planning, professional training and development, and policy oversight and administration. Ensures Vulnerability Assessments are conducted to determine if spent nuclear material is adequately protected and to determine if necessary protection measures and physical upgrades are required. The Self-Assessment program ensures compliance with applicable DOE Orders and the Site Safeguards and Security Plans.

Cyber Security 2,954 2,735 3,958

- **#** Protects all computing resources and information using a risk-based priority method with emphasis on classified and sensitive unclassified data and minimizing public embarrassment typically associated with visible cyber incidents; communication security; and cyber infrastructure.

	(dollars in thousands)		
	FY 2001	FY 2002	FY 2003
Personnel Security	1,625	1,607	1,586

Ensures that employees who have access to classified and unclassified sensitive information and/or spent nuclear fuel have the appropriate security clearances and special access program approvals, where required. The personnel security directives ensure that spent nuclear fuel and classified and sensitive unclassified information are adequately protected. The foreign national visit/assignment/employment program provides for the approval and oversight of non-United States citizens at the Idaho National Engineering and Environmental Laboratory. The program provides funding for implementation and maintenance of a security awareness program.

Total, Idaho	**41,470**	**42,172**	**43,807**

Explanation of Funding Changes

	FY 2003 vs. FY 2002 ($000)
ID-SS-D-ANLW / ANL-W Safeguards and Security	
# Decrease is due to a reduction in the Physical Security area.	-829
IDGJ-SS-D / Grand Junction Safeguards and Security	
# Increase will provide additional guard support providing full-time protection, training, and additional software.	361
ID-SS-D / Idaho Safeguards and Security	
# Increase is due to meet heightened security measures, additional 24-hour posts and patrols, continuing certification training, to meet the current SECON level, and conduct vulnerability assessment.	2,103
Total Funding Change, Idaho	1,635

Oak Ridge

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Safeguards and Security program carried out by the Oak Ridge Operations Office, is to provide development, implementation, and oversight of the safeguards and security programs at the East Tennessee Technology Park in Oak Ridge, Tennessee, and the Gaseous Diffusion Plants in Paducah, Kentucky and Portsmouth, Ohio.

Program Goal

The program goal of the safeguards and security program is to provide adequate protection while meeting various mission responsibilities in a technically sound and cost-effective manner.

Program Objectives

The Safeguards and Security program shall ensure that all areas for which Bechtel Jacobs Company is responsible, maintain a high degree of readiness for DOE safeguards and security surveys and inspections.

- Establish and manage implementation of the processes and programs necessary to meet safeguards and security program requirements in applicable DOE Orders and Directives, including: nuclear material control and accountability, classification, information security, personnel security, physical security, security systems, protective forces, and operations security.
- Provide adequate protection levels in accordance with potential risks.
- Ensure safeguards and security interests are protected and controlled.

Significant Accomplishments and Program Shifts

ACCOMPLISHMENTS:

- Set up equipment (new CPUs, mux panels, revamped termination block for dedicated phone lines) to upgrade the system to a level that would support the security alarms at the East Tennessee Technology Park. Transitioned all alarms from an obsolete computer system to an upgraded (Hirsch) system.

- Established Self-Assessment program, with dedicated individual to lead the program. Areas were identified for assessment and a schedule developed. Assessment reports are issued to responsible individuals, with findings tracked in the Bechtel Jacobs, Co. Issues and Corrective Actions tracking System.
- Initiated Authorized Derivative Classifier Recertification Program, as required by DOE M 475.1-1, Identifying Classified Information, for all East Tennessee Technology Park Authorized Derivative Classifiers. Each Authorized Derivative Classifier received a letter indicating the successful completion of the program requirements, the specific areas for which the Authorized Derivative Classifier may derivatively classify documents, and the extension of the Authorized Derivative Classifier's authority for a three-year period.
- Completed classification review of 75 boxes of 1940s East Tennessee Technology Park records in support of the NIOSH Multiple Myeloma Study.
- East Tennessee Technology Park consultant developed a video of the history of centrifuge and related classification issues. Video will be used for training purposes.
- Completed rebadging of all Bechtel Jacobs Company employees, subcontractors, and consultants.
- Installed network security software on the local area network Nuclear Materials Inventory System, in preparation for classified certification.
- Provided bibliographic data on thirteen East Tennessee Technology Park-generated documents for inclusion on the OpenNet database of documents declassified and approved for public release.
- Implemented a revised Vehicle Directive resulting in a 22 percent reduction in permanent vehicle passes.

PROGRAM SHIFTS:

- A significant change in responsibility for work performance occurred when Bechtel Jacobs Company began self-performing technical security functions at Paducah that were formerly handled by the United State Enrichment Corporation Security. The return of select facilities results in an increase of safeguards and security operations and decontamination and decommissioning portal planning activities.

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
OR-SS4-D / ETTP Safeguards and Security	11,435	11,476	13,164
OR-SS5-D / Paducah Safeguards and Security	3,170	2,408	6,849
OR-SS6-D / Portsmouth Safeguards and Security	8,274	7,449	11,917
Total, Oak Ridge	22,879	21,333	31,930

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
East Tennessee Technology Park	11,435	11,476	13,164	1,688	14.7%
Paducah	3,170	2,408	6,849	4,441	184.4%
Portsmouth	8,274	7,449	11,917	4,468	60.0%
Total, Oak Ridge	22,879	21,333	31,930	10,597	49.7%

Site Description

East Tennessee Technology Park

The East Tennessee Technology Park, formerly known as the K-25 Plant, occupies 4,689 acres of the Oak Ridge Reservation. It is approximately 13 miles west from the main population of the city of Oak Ridge, Tennessee. The current site configuration is the product of past missions and programs, the most significant of which was the Oak Ridge Gaseous Diffusion Plant (K-25), which operated from the end of World War II until 1985. The current mission of the East Tennessee Technology Park is to re-industrialize and reuse site assets (facilities, equipment, materials, utilities, and trained workforce) through leasing of vacated facilities and incorporation of commercial industrial organizations as partners in the ongoing environmental restoration, decontamination and decommissioning, waste treatment and disposal, and diffusion technology development activities. The ultimate goal is to transition from a federally-owned facility to a private industrial park. The security function at the East Tennessee Technology Park is responsible for implementing all safeguards and security activities.

Paducah Gaseous Diffusion Plant

The Paducah Gaseous Diffusion Plant, located just outside Paducah, Kentucky, is owned by DOE. Paducah's mission includes environmental cleanup and waste management; management of depleted uranium hexafluoride; and maintenance of non-leased buildings and grounds. The United States Enrichment Corporation enriches uranium for use in nuclear power reactors. The security aspect of the mission includes physical protection of government employees, property, classified and unclassified information through use of protective forces and physical security instrumentation, information security, cyber security, personnel security, material control and accountability, and program management.

Portsmouth Gaseous Diffusion Plant

The Portsmouth Gaseous Diffusion Plant, located in Piketon, Ohio (approximately 22 miles north of Portsmouth and 75 miles south of Columbus), is owned by DOE. Portsmouth's mission includes environmental cleanup and waste management; management of depleted uranium hexafluoride generated prior to privatization of the United States Enrichment Corporation in July 1998; completion of the highly-enriched uranium shutdown and removal program; and maintenance of non-leased buildings and grounds. The United States Enrichment Corporation enriches uranium for use in nuclear power reactors. The security aspect of the mission includes physical protection of government employees, property, classified and unclassified information through use of protective forces and physical security instrumentation, information security, cyber security, personnel security, material control and accountability, and program management. The United State Enrichment Corporation announced their intention to stop enrichment operations at Portsmouth in FY 2001, and DOE announced its intentions to initiate activities to place the facility in cold standby.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003

The safeguards and security functions are divided among the contractors at the various sites to include the East Tennessee Technology Park in Oak Ridge, Tennessee, and the Gaseous Diffusion Plants in Portsmouth, Ohio, and Paducah, Kentucky. The funds requested for FY 2003 will support safeguards and security activities: physical protection of government employees, property, classified and unclassified information through use of protective forces and physical security instrumentation, information security, cyber security, personnel security, material control and accountability, and program management.

OR-SS4-D / ETTP Safeguards and Security	**11,435**	**11,476**	**13,164**
Physical Security	10,324	10,368	11,896

Physical Security Protective Forces - provides the appropriate level of protection for classified matter, information, and government property, including monitoring of alarms and dispatch of response forces. In addition, resources are provided for compensatory measures while maintenance and/or repair is being performed on active systems. Protective Force personnel also monitor security boundaries, fences, gates, and other devices used to protect the installation and preclude unauthorized entry. They also operate the pedestrian and vehicle gates and portals for ingress/egress.

Physical Security Protection Systems - reflects the cost for development and implementation of physical security policies and procedures, preparation of physical security requirements documents, oversight of physical security enhancements, examination and certification of all vault-type rooms and security island outside the protected area, providing the automated access control systems and other security systems.

	(dollars in thousands)		
	FY 2001	FY 2002	FY 2003

- # Information Security - includes the cost of providing classified matter protection and control programs and security infraction and incident programs, and the classification/declassification program.
- # Material Control and Accountability - includes the cost of providing oversight and management for nuclear control and accountability activities.
- # Program Management - contains the cost of the security manager and staff. The function performed by this organization is to provide overall leadership and guidance in performance and completion of security activities.

Cyber Security	730	724	829

- # Contains the cost of the unclassified and classified computer security tasks. Also includes computer security training, computer user awareness training, and conducting self-assessments as required.

Personnel Security	381	384	439

- # Provides for the cost of badging support for all East Tennessee Technology Park employees, subcontractors, and visitors; operation of the Visitor Control System; operation of the DOE Automated Visitor Access Control System; and review of all security clearance requirements and access determinations.

OR-SS5-D / Paducah Safeguards and Security	**3,170**	**2,408**	**6,849**
Physical Security	3,097	2,347	6,676

- # Physical Security Protective Forces - provides physical security for DOE retained facilities, including ingress/egress control, and protection of both personnel and property. Services are procured from the United States Enrichment Corporation.
- # Physical Security Protection Systems - reflects the cost for physical security protection systems for contractor and subcontractor employees. Includes development and implementation of physical security policies and procedures, preparation of physical security requirements documents, oversight of physical security enhancements, examination and certification of all vault-type rooms and security systems. Entry/access control services are procured from the United States Enrichment Corporation. Escorts are provided by a Bechtel Jacobs subcontractor.
- # Information Security - includes the cost of providing classified matter protection and control programs and security infraction and incident programs, and the classification/declassification program. Information protection services are provided by the United States Enrichment Corporation. Declassification/classification services are procured from a Bechtel Jacobs subcontractor.
- # Material Control and Accountability - includes the cost of providing oversight and management for nuclear control and accountability activities. Services are procured from the United States Enrichment Corporation.

	(dollars in thousands)		
	FY 2001	FY 2002	FY 2003

- Program Management - contains the cost of the security manager and staff. The function performed by this organization is to provide overall leadership and guidance in performance and completion of security activities. Services are provided by Bechtel Jacobs.

Personnel Security	73	61	173

- Provides for the cost of badging support for all employees, subcontractors, and visitors; operation of the Visitor Control System; operation of the DOE Automated Visitor Access Control System; and review of all security clearance requirements and access determinations. Services are procured from the United States Enrichment Corporation.

OR-SS6-D / Portsmouth Safeguards and Security	**8,274**	**7,449**	**11,917**
Physical Security	8,023	7,360	11,776

- Physical Security Protective Forces - provides the appropriate level of protection for classified matter, information, and government property, including monitoring of alarms and dispatch of response forces. In addition, resources are provided for compensatory measures while maintenance and/or repair is being performed on active systems. Protective Force personnel also monitor security boundaries, fences, gates, and other devices used to protect the installation and preclude unauthorized entry. They also operate the pedestrian and vehicle gates and portals for ingress/egress. Services will be performed by a subcontractor, United States Enrichment Corporation, under an existing work agreement between Bechtel Jacobs Company LLC and the United States Enrichment Corporation. The work agreement is renewed annually.
- Physical Security Protection Systems - reflects the cost for development and implementation of physical security policies and procedures, preparation of physical security requirements documents, oversight of physical security for security interests retained by DOE as of October 1, 1999. Costs also include the inspection of all storage areas for classified information and special nuclear materials and the maintenance of a key and lock and security badging program. It is assumed that a subcontractor, the United States Enrichment Corporation, will provide these services.
- Information Security - includes the cost of providing classified matter protection and control programs and security infraction and incident programs, and the classification/declassification program and the Large-Scale Classification Review program. It is assumed that the classification/declassification program will be performed by subcontractor personnel including support from the United States Enrichment Corporation.
- Material Control and Accountability - includes the cost of providing oversight and management for nuclear control and accountability activities. It is assumed that a subcontractor, United Sates Enrichment Corporation, will provide these services.
- Program Management - contains the cost of the security manager and staff. The function performed by this organization is to provide overall leadership and guidance in performance and completion of security activities of the Bechtel Jacobs Company.

	(dollars in thousands)		
	FY 2001	FY 2002	FY 2003
Cyber Security	160	15	23
# Contains the cost of the unclassified and classified computer security programs. It is assumed that a subcontractor will be performing the classified computer security with oversight from Bechtel Jacobs Company, and the Bechtel Jacobs Company will perform the unclassified computer security.			
Personnel Security	91	74	118
# Includes the operation of the Visitor Control Program, review of all security clearance requirements and access determinations. This function is currently being conducted by a Bechtel Jacobs employee.			
Total, Oak Ridge	**22,879**	**21,333**	**31,930**

Explanation of Funding Changes

	FY 2003 vs. FY 2002 ($000)
OR-SS4-D / ETTP Safeguards and Security	
# Increase in funds will support additional protective force services and personnel in nuclear materials control and accountability services.	1,688
OR-SS5-D / Paducah Safeguards and Security	
# Increase in funds will support nuclear materials control and accountability requirements, additional protective force services and the inability to recover from Work for Others customers due to the dramatically decreased base in the Work for Others work.	4,441
OR-SS6-D / Portsmouth Safeguards and Security	
# Increase in funds will support nuclear materials control and accountability requirements, additional protective force services and the inability to recover from Work for Others customers due to the dramatically decreased base in the Work for Others work.	4,468
Total Funding Change, Oak Ridge	10,597

Ohio

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Safeguards and Security program carried out by the Ohio Field Office, is to provide general security, physical security, and cyber-security for the West Valley Demonstration Project in accordance with all applicable DOE standards, rules, and regulations.

Program Goal

The program goal is to provide the West Valley Demonstration Project personnel a work environment secure from physical threats, and protection of electronic data management systems from disruption due to unauthorized users or intruders.

Program Objectives

The West Valley Demonstration Project security efforts are executed through administration and operation of a protective security force subject to annual training and qualification standards. Physical security is provided through a comprehensive lock and key system, remote closed-circuit television and alarm monitoring, area fencing and barrier protection. Cyber security is provided to ensure that all DOE unclassified information resources are identified and protected in a manner consistent with the Project's mission and possible threats.

Significant Accomplishments and Program Shifts

Provide administration and operations of protective security force, physical security through access control and monitoring, and cyber-security protection.

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
OHWV-SS-D / West Valley Safeguards and Security	1,977	1,395	2,210
Total, Ohio	1,977	1,395	2,210

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
West Valley	1,977	1,395	2,210	815	58.4%
Total, Ohio	1,977	1,395	2,210	815	58.4%

Site Description

West Valley

The West Valley Demonstration Project is located 35 miles south of Buffalo, New York. Originally built and commercially operated as a reprocessing plant for spent nuclear fuel, the site was shut down in 1972. The Department's primary mission at the site is to safely turn radioactive liquid into a manageable solid glass. The Department is also responsible for transporting the solidified waste to a Federal repository for permanent disposal; dispose of the Project-generated low-level and transuranic wastes; and decontaminate and decommission facilities used by the West Valley Demonstration Project according to requirements prescribed by the Nuclear Regulatory Commission.

Detailed Program Justification

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
OHWV-SS-D / Safeguards and Security	**1,977**	**1,395**	**2,210**
Physical Security	1,607	775	1,608
# Program Management - Includes supervisory personnel and administrative support.			
# Physical Protective Forces - Comprised of uniformed guard personnel.			
# Physical Security Protective Systems - Supports access control and offsite facility monitoring.			
Cyber Security	370	620	602
# Includes unclassified computer security and infrastructure.			
Total, Ohio	**1,977**	**1,395**	**2,210**

Explanation of Funding Changes

	FY 2003 vs. FY 2002 ($000)
OHWV-SS-D / West Valley Safeguards and Security	
# Increase is due to retention of spent nuclear fuel at the site, which results in additional safeguards and security requirements and protective forces.	815
Total Funding Change, Ohio	815

Richland

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Safeguards and Security program carried out by the Richland Operations Office, is to ensure appropriate levels of protection for Hanford facilities against: unauthorized access; theft or diversion of Special Nuclear Materials; acts of sabotage; espionage; theft or loss of classified matter; theft or loss of government property; and other hostile acts that may cause unacceptable impacts on national security or on the health and safety of employees, the public, or the environment.

Program Goal

The DOE/Richland Operations Office broadly defines the safeguards and security program performance expectations in the Fiscal Year Performance Expectation Plans for the applicable site contractors. The performance expectation plans provide the Richland Operations Office with a process and procedures for determining the level of "incentive" performance for safeguards and security for the fiscal year. The Safeguards and Security Fiscal Year Baseline Plan fully describes discrete deliverables assigned to safeguards and security. Sitewide DOE/Richland Operations Office planning priorities for safeguards and security are established during an annual meeting of Hanford safeguards and security management representatives and various safeguards and security customers.

Program Objectives

The objectives of the Safeguards and Security Program are to:

- Ensure a safe, secure, and environmentally sound work place for all employees, assuring the cost effective completion of work scope and deliverables, and compliance with safeguards and security requirements.
- Conduct and maintain the Hanford site safeguards and security program to protect spent nuclear materials, classified matter, personnel and the physical and intellectual property of the government and other clients in a manner consistent with the mission and government requirements.
- Conduct the Hanford site Nuclear Materials Management program to include the identification and reduction of excess nuclear materials.
- Continue to evaluate program protection strategies for adequate and effective management of risk rather than implementing only compliance driven requirements while continuing alignment of security measures to the operational needs of the site contractors.

Significant Accomplishments and Program Shifts

The site contractors have continually met the safeguards and security milestones and deliverables as established by the DOE/Richland Operations Office, Office of Security and Emergency Services, and applicable Headquarters offices.

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
RL-SS-D / Hanford Safeguards and Security	53,036	54,844	54,654
Total, Richland	53,036	54,844	54,654

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Flour Hanford	41,024	43,255	42,118	-1,137	-2.6%
Pacific Northwest National Laboratory	10,774	10,493	11,471	978	9.3%
Richland Operations Office	1,238	1,096	1,065	-31	-2.8%
Total, Richland	53,036	54,844	54,654	-190	-0.3%

Site Description

Richland Operations Office

The Richland Operations Office provides oversight for the Hanford Site and Pacific Northwest National Laboratory. The Hanford Site (560 square miles) is located in southeastern Washington state just north of Richland. The current safeguards and security mission of the Hanford site (including support to the Office of River Protection) focuses on the appropriate levels of protection for Hanford facilities against: unauthorized access; theft or diversion of spent nuclear materials; acts of sabotage; espionage; theft or loss of classified matter; theft or loss of government property; and other hostile acts that may cause unacceptable impacts on national security; or on the health and safety of employees, the public, or the environment.

Detailed Program Justification

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
RL-SS-D / Hanford Safeguards and Security	**53,036**	**54,844**	**54,654**
Physical Security	47,707	49,747	50,045

- **#** Physical Protection Protective Forces: The Hanford Patrol armed protective force protects against the loss of spent nuclear fuel, classified matter, and other adversarial acts as defined in the FY 1999 Design Basis Threat. Protective force members maintain training and qualification standards required by DOE Order 5632.7A, Protective Force Program, and Title 10, Code of Federal Regulations, Part 1046, Physical Protection of Security Interests. Protective force coverage is providing on a 24-hour basis for the following Hanford Site programs: Nuclear Material Stabilization, Spent Nuclear Fuel, Waste Management, River Protection, River Corridor, and Pacific Northwest National Laboratory. The Benton County Sheriff's Office provides law enforcement support to DOE-Richland Operations Office. The office is responsible for all criminal investigations, as well as traffic enforcement.
- **#** Physical Security Protection Systems: This program ensures compliance with requirements established in DOE Order 407.1, Safeguards and Security Program, DOE M 5632.1C-1, Manual for Protection and Control of Safeguards and Security Interests, and RLID 473.1, Protection of Safeguards and Security Interests. Activities include conducting vulnerability and risk assessments; installation and maintenance of security sensors, alarm reporting, and communications systems, and automated access control equipment; security clearance processing and site badging; foreign visits and assignments administration; and providing safeguards and security guidance to managers and employees in facilities that store spent nuclear material, nuclear waste, firearms, classified matter, or other government property.
- **#** Information Security: This activity encompasses information protection, declassification/classification, critical infrastructure, technical surveillance countermeasures, and operations security. Oversight and administration of these programs protect critical, sensitive, and essential mission data. This includes managing each program; providing training and education; enforcing compliance; ensuring information integrity; protecting information from intruders; and detecting unauthorized access.
- **#** Material Control and Accountability: This activity is responsible for the oversight and accountability of all reportable nuclear materials. The material control staff: maintains the central accounting records; administers the tamper-indicating device program; monitors material control indicators; evaluates measurements and measurement control; investigate anomalies; respond to emergencies; perform internal assessments; and support International Atomic Energy Agency inspections.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

Program Management: This program ensures the protection and control of DOE/client assets through: effective planning; professional development and training of safeguards and security staff; inspections, surveys or assessments; resource planning and implementation for safeguards and security; policy oversight; management and administration; responses to management requests; classified tracking program; and foreign ownership, control, or influence. Program Management is also responsible for the development of the Site Safeguards and Security Plan.

Cyber Security	2,346	2,315	1,752

This activity administers an unclassified computer security program, classified computer security, communications security, TEMPEST, and cyber infrastructure. Oversight and administration of these programs protect critical, sensitive, and essential mission data. This includes managing each subcategory; providing training and education; enforcing compliance, ensuring data integrity; protecting systems from intruders; and detecting unauthorized access.

Personnel Security	2,983	2,782	2,857

The Personnel Security staff conducts pre-employment and pre-clearance suitability investigations on current and prospective employees of Project Hanford and employees of other subcontractors performing support work. In addition, Personnel Security coordinates all security clearance activities and investigations required for contractor employees including requests, justifications, downgrading and terminating security clearances. This program also supports access authorization for clearance program processing, security awareness training, and visit control.

Total, Richland	**53,036**	**54,844**	**54,654**

Explanation of Funding Changes

	FY 2003 vs. FY 2002 ($000)
RL-SS-D / Hanford Safeguards and Security	
# No significant change.	-190
Total Funding Change, Richland	-190

Savannah River

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Safeguards and Security program carried out by the Savannah River Operations Office, is to support national security interests through the protection of the Savannah River Site nuclear weapons materials, production facilities, property and classified matter from left, sabotage, or unauthorized control.

Program Goal

The program goal is to protect against: unauthorized access, loss, or theft of classified matter or government property; espionage; theft, diversion or loss of custody or destruction of special nuclear material; any other hostile acts that may cause unacceptable adverse impacts on national security of the health and safety of employees, the public, and the environment.

Program Objectives

The objective of the Savannah River Site Safeguards and Security Program is to conduct these varied mission responsibilities with a constant concern for protecting the health, welfare, and safety of employees, the public, and preserve our natural environment.

Significant Accomplishments and Program Shifts

The safeguards and security milestones and deliverables are being met.

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
SR-SS-D / Savannah River Safeguards and Security	93,733	99,125	93,153
Total, Savannah River	93,733	99,125	93,153

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Savannah River Site	93,733	99,125	93,153	-5,972	-6.0%
Total, Savannah River	93,733	99,125	93,153	-5,972	-6.0%

Site Description

Savannah River Operations Office

The Savannah River Site complex covers 198,344 acres located approximately 25 miles southeast of Augusta, Georgia, in the state of South Carolina. The Savannah River Site encompasses 13 separate areas; five isotope production areas, which are permanently shutdown; heavy water processing facilities; chemical processing and waste management facilities, including tank farm areas; administrative offices, laboratories, technical shops and provide for facilities, which support research and development associated with spent nuclear materials processing; and low-level waste disposal, reactor fuels, and solid waste disposal areas along with the Defense Waste Processing Facility. The site supports the processing of certain offshore nuclear materials returned for processing and disposal. Those Savannah River Site facilities which are actively conducting nuclear material operations are sited in material access and property protection areas requiring graded physical security measures, including armed guards and electronic detection of assessment systems.

Detailed Program Justification

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
SR-SS-D / Savannah River Safeguards and Security	**93,733**	**99,125**	**93,153**
Physical Security	88,879	92,905	87,412

Supports uniformed protective force personnel which include armed security policy officers II, Central Alarm Station specialists and unarmed security officers, operations security specialists, lieutenants, and zone security managers assigned to support physical security specialists, lieutenants, and zone security managers assigned to support physical security requirements. Also, supports level of protection for processing Category I quantities of special nuclear material in the facility. Includes low enforcement/general site security, aviation operations, and special response teams. In addition, includes operating and maintenance activities associated with performance testing, intrusion detection and assessment; barrier/secure storage/locks; entry control/access controls; explosive detection; vital components and tamper safe monitoring; and escorts.

(dollars in thousands)

FY 2001	FY 2002	FY 2003

- # Supports a Canine Team to deter the introduction of explosives onto the site, patrol perimeters of security areas to compensate for temporary failures of intrusion detection systems or during periods of increased security awareness, and locate suspected intruders or adversaries in buildings or in areas affording concealment.
- # Supports forensic capability to focus in the areas of unauthorized disclosures of classified information and unauthorized penetrations of information systems. Savannah River provides a laboratory capability to conduct forensic activities on Departmental information systems, in accordance with the Department of Justice guidelines. Provides support associated with classified documents and material, classification and declassification, unclassified controlled nuclear information, security infractions, critical infrastructure, information protection, technical surveillance countermeasures and operations and security.
- # Supports materials accountability and control concepts, which will employ innovative electronic surveillance of nuclear material, state-of-the-art measurement technology and best available data collection and data warehousing applications. Includes activities associated with control and accountability of special nuclear materials, nuclear weapons, test devices, and weapons components and parts, materials control and accountability access area, surveillance, containment, detection, assessment, testing, transfers, verifications and measurements, inventories, reconciliation, and statistical analysis.
- # Supports activities incurred through research and/or the systematic development of technologies for use in physical security, material control and accounting, information security, and personnel security. This encompasses any activities that are required for a technology to progress from basic research to full scale development and the technology transfer of a product to a commercial vendor, to include any modification of proven technologies to satisfy safeguards and security requirements.
- # Supports the Protective Force Assessment Program and the Performance Testing Program. Conducts order compliance and performance based assessments and audits safeguards and security systems, and protective force operations for compliance with prescriptive requirements, costs effectiveness, and safe execution of operations. Manages all programs and functions relating to accounting, contracts, and resources, procurement, computer services, office services, logistics, compensation and benefits, employee relations and labor relations. Supports policy oversight and management and administrations. Responds to management requests and foreign ownership, control or influence.

Cyber Security	2,321	2,273	2,084

- # Ensures that sensitive and classified information that is electronically processed or transmitted is properly identified and protected, and that electronic systems are appropriately marked and protected through a process of planning, documenting, implementing, and testing of protective strategies. Included are, but not limited to, testing a cyber security program that supports classified automated information systems, communications security, TEMPEST and the maintenance of an appropriate level of infrastructure reliability and integrity.

	(dollars in thousands)		
	FY 2001	FY 2002	FY 2003
Personnel Security	2,533	3,947	3,657

Ensures implementation of DOE policies and directives pertaining to personnel security, which includes: security education; provision of expert technical and administrative support for Savannah River Personnel Security activities. This includes the programmatic areas of the access authorization, personnel security assurance program, safeguards and security awareness, special access program, site/facility access program, and control of visits and the Savannah River Foreign ownership.

Total, Savannah River	**93,733**	**99,125**	**93,153**

Explanation of Funding Changes

	FY 2003 vs. FY 2002 ($000)
SR-SS-D / Savannah River Safeguards and Security	
# Decrease reflects overall reduction in the Physical Security activities.	-5,972
Total Funding Change, Savannah River	-5,972

Environmental Management Program Direction

Mission Supporting Goals and Objectives

Program Direction provides for the Federal workforce responsible for the overall direction and administrative support of the EM program, including both Headquarters and field personnel. The EM mission of protecting human health and the environment is carried out by a workforce composed largely of contractors, although there are a variety of functions that are inherently governmental (e.g., program management, contract administration, and interagency and international coordination) that require a dedicated Federal workforce.

The role of the Headquarters Federal workforce is to provide leadership, establish and implement national policy, conduct analyses and integrate activities across sites. Increasing standards of accountability for program performance and spending require Headquarters staff to analyze budget requests, track expenditures, assess cumulative impacts of compliance agreements signed by field offices, and compile Congressionally mandated and other program plans (e.g., life cycle baselines, five-year plans, and future land use and long-term stewardship plans). Also, interactions with non-DOE government employees (e.g., participation in International Atomic Energy Agency activities, and negotiations with foreign embassies and reactor operators) are most appropriately performed by Federal employees rather than contractors. Finally, Headquarters personnel assess the progress of planned program activities in order to report to Congress, Federal, State and local governments, Indian Tribes, citizen groups and the public on the status of EM programs.

Field personnel are responsible and directly accountable for implementing the EM program within the framework established by Headquarters policy and guidance. In addition, the field is responsible for the day-to-day oversight of the Department's facilities, the facility contractor and other support contractors, as well as construction and test activities that support EM activities for DOE. The field office personnel are responsible for planning and implementing performance improvement programs and the technical programs needed to comply with standards and regulations. They are also responsible for the preparation of regulatory documents and interaction with the regulators who have oversight of facility operations. The field staffing level includes personnel supporting the analytical laboratories.

Program Direction has been grouped into four categories:

- Salaries and benefits for FY 2003 provide for 405 Federal full-time equivalents at Headquarters (employees based in Germantown, Maryland and Washington, DC), and 1,996 Federal full-time equivalents at the eleven major Operations/Field Offices located throughout the United States, the Office of River Protection located in Washington State, and the National Energy Technology Laboratory with facilities located in Morgantown, West Virginia and Pittsburgh, Pennsylvania. In addition, funding is provided for workers' compensation payments to the Department of Labor, benefits associated with permanent change of station, transit subsidies and incentive awards.
- Travel includes all costs of transportation, subsistence, and incidental travel expenses of EM's Federal employees in accordance with Federal Travel Regulations. This also includes travel costs associated with permanent change of duty station.

- Support Services includes technical and administrative support, program management and integration, management information and support systems, performance systems, and cost/schedule studies. Program management includes support for organizational and strategic planning; coordination and interaction with other Federal, State and local government agencies and private industrial concerns; performance measurement; and cost assessment. Administrative support includes funding for personnel development, training, travel, and logistics support.

  Technical support services include, but are not limited to, determining feasibility of design considerations; development of specifications, system definition, system review and reliability analyses; trade-off analyses; economic and environmental analyses which may be used in DOE's preparation of environmental impact statements; and test and evaluation, surveys or reviews to improve the effectiveness, efficiency and economy of technical operations.

  Management support services include, but are not limited to, analyses of workload and work flow; directives management studies; automated data processing; manpower systems analyses; assistance in the preparation of program plans; training and education; analyses of Departmental management processes; and any other reports or analyses directed toward improving the effectiveness, efficiency and economy of management and general administrative services.

- Other related expenses includes training the Federal workforce, rental of office space, building maintenance, telephone and network communication costs, utilities, computer/video support, printing and graphics, photocopying, postage, and office supplies and equipment at Headquarters and the Operation/Field Offices. A Working Capital Fund was established at Headquarters in FY 1997 by the Office of Management and Administration to allocate the cost of common administrative services to the recipient Headquarters organizations. Activities supported by the Working Capital Fund include automated office support, telephone services, postage, printing and graphics, supplies, photocopying, building occupancy, payroll processing, contract closeouts and the Corporate Executive Information System.

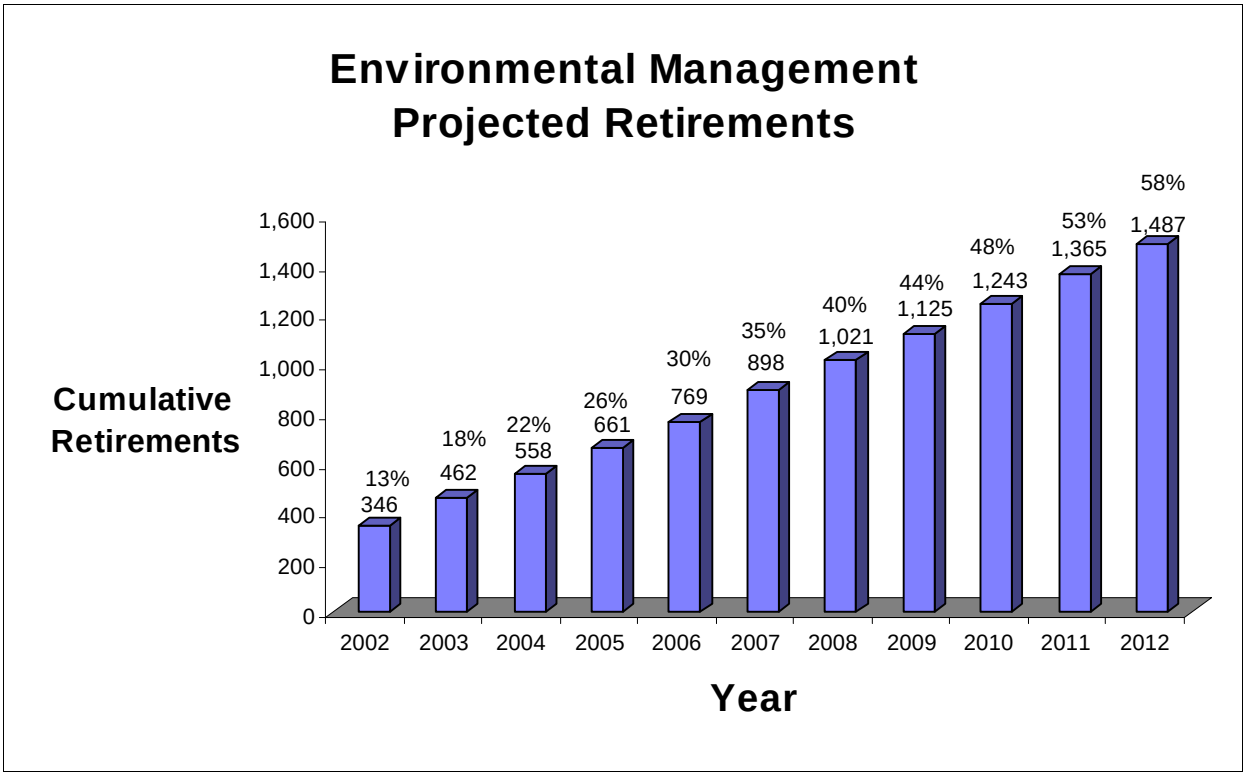
Fully Funded Pension and Health Benefits

Beginning in FY 2003, a government-wide change will be initiated which will require each agency to pay the full share of retirement for employees covered under the Civil Service Retirement System. Also beginning in FY 2003, each agency will be required to pay the post-retirement health costs of all retirees (and their dependents/survivors). In the past, the Office of Personnel Management was responsible for paying for these unbudgeted requirements. This budgeting change will result in additional requirements totaling $14 million for the Office of Environmental Management.

Workforce Management Efforts

Between FY 1995 and FY 2003, total Environmental Management full-time equivalent (FTE) employee usage has been reduced by 24%, with Headquarters being reduced by over 44%. These overall reductions were achieved despite increasing work scope (e.g., the creation of the Office of River Protection). In FY 2003, EM's staffing will be reduced by 252 FTEs from the FY 2002 level.

The head of the Office of Personnel Management, Kay Cole James, stated in her confirmation hearing before the Senate Government Affairs Committee on June 21, 2001, that one of her top priorities would



Based on a total workforce of 2,588 (May 19, 2001)

be to help agencies recruit and retain talented workers to replace the legions of employees retiring in the coming years. Further, James said it is essential that the government elevate the image of public servants and recruit highly skilled and motivated employees.

In the next ten years (by the end of 2011), over 53% of the EM workforce will either be eligible for retirement or will have already retired. By the end of 2012, this number climbs to 58%. According to the Congressional Budget Office in its May 2001 *Changes in Federal Civilian Employment An Update,* "If the federal government continues its recent efforts to limit employment, the aging of the workforce will likely continue. Eventually, agencies could face significant challenges replacing experienced skilled staff as more workers become eligible for retirement." Additionally, the General Accounting Office has urged agencies to prepare for potential problems posed by the aging workforce. Among other things, GAO recently recommended more effective recruitment and retention, more succession planning, and more investment in the training and development of existing staff.

Analytical Laboratories

Environmental Measures Laboratory

This budget supports the Environmental Measurements Laboratory, a government-owned, government-operated laboratory located in New York, New York, and reporting to the Chicago Operations Office. Funding in FY 2003 will support Federal full-time equivalent employees, support contractors, and associated laboratory expenses. The Environmental Measurements Laboratory conducts scientific and technical investigations related to environmental surveillance and monitoring, site and facility characterization and decontamination and decommissioning. The Environmental Measurements Laboratory provides the Department of Energy and other Federal agencies with a responsive and objective technical capability to: assure sampling, measurement and analysis quality and assess risk of human exposure to radioactivity and other energy-related pollutants. It also provides an in-house, high quality scientific capability to address important issues related to national security.

Radiological and Environmental Sciences Laboratory

This budget supports the Radiological and Environmental Sciences Laboratory (RESL), a government-owned, government-operated laboratory located approximately 50 miles west of Idaho Falls, Idaho, and reporting to the Idaho Operations Office. EM provides funding to support Federal full-time equivalents employees and associated laboratory expenses. RESL provides an independent resource free from conflict-of-interest in the area of analytical metrology (metrics) and measurement quality assurance.

Funding Schedule

(dollars in thousands, whole FTEs)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Albuquerque					
Salaries and Benefits	5,265	5,570	5,711	141	2.5%
Travel	287	155	158	3	1.9%
Support Services	1,605	848	967	119	14.0%
Other Related Expenses	246	460	571	111	24.1%
Total, Albuquerque	7,403	7,033	7,407	374	5.3%
Full-Time Equivalents	63	59	54	-5	-8.5%
Carlsbad Field Office					
Salaries and Benefits	5,435	6,319	5,685	-634	-10.0%
Travel	305	350	357	7	2.0%
Support Services	0	0	0	0	<999.9%
Other Related Expenses	1,622	2,077	2,323	246	11.8%
Total, Carlsbad Field Office	7,362	8,746	8,365	-381	-4.4%
Full-Time Equivalents	52	64	54	-10	-15.6%
Chicago					
Salaries and Benefits	7,741	10,562	9,152	-1,410	-13.4%
Travel	300	187	191	4	2.1%
Support Services	2,129	260	366	106	40.8%
Other Related Expenses	1,150	1,613	1,748	135	8.4%
Total, Chicago	11,320	12,622	11,457	-1,165	-9.2%
Full-Time Equivalents	79	98	81	-17	-17.3%
Idaho					
Salaries and Benefits	35,505	35,974	34,783	-1,191	-3.3%
Travel	1,444	762	778	16	2.1%
Support Services	2,553	1,775	1,913	138	7.8%
Other Related Expenses	7,163	7,365	7,621	256	3.5%
Total, Idaho	46,665	45,876	45,095	-781	-1.7%
Full-Time Equivalents	327	363	331	-32	-8.8%

(dollars in thousands, whole FTEs)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
National Energy Technology Laboratory					
Salaries and Benefits	4,054	4,198	4,008	-190	-4.5%
Travel	283	150	153	3	2.0%
Support Services	715	378	487	109	28.8%
Other Related Expenses	46	58	160	102	175.9%
Total, Nat'l Energy Technology Lab.	5,098	4,784	4,808	24	0.5%
Full-Time Equivalents	36	36	33	-3	-8.3%
Nevada					
Salaries and Benefits	4,237	5,141	3,972	-1,169	-22.7%
Travel	175	84	86	2	2.4%
Support Services	1,740	527	639	112	21.3%
Other Related Expenses	80	129	233	104	80.6%
Total, Nevada	6,232	5,881	4,930	-951	-16.2%
Full-Time Equivalents	37	51	36	-15	-29.4%
Oakland					
Salaries and Benefits	6,532	6,764	6,534	-230	-3.4%
Travel	325	161	164	3	1.9%
Support Services	1,160	599	713	114	19.0%
Other Related Expenses	1,325	1,419	1,550	131	9.2%
Total, Oakland	9,342	8,943	8,961	18	0.2%
Full-Time Equivalents	66	68	62	-6	-8.8%
Oak Ridge					
Salaries and Benefits	14,242	15,475	14,864	-611	-3.9%
Travel	461	296	302	6	2.0%
Support Services	3,529	1,305	1,433	128	9.8%
Other Related Expenses	2,185	2,543	2,697	154	6.1%
Total, Oak Ridge	20,417	19,619	19,296	-323	-1.6%
Full-Time Equivalents	138	153	139	-14	-9.2%
Ohio					
Salaries and Benefits	19,476	20,078	19,075	-1,003	-5.0%
Travel	572	303	309	6	2.0%
Support Services	3,059	1,645	1,781	136	8.3%
Other Related Expenses	1,771	1,808	1,947	139	7.7%
Total, Ohio	24,878	23,834	23,112	-722	-3.0%
Full-Time Equivalents	203	202	184	-18	-8.9%

(dollars in thousands, whole FTEs)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Richland					
Salaries and Benefits	37,514	38,916	37,009	-1,907	-4.9%
Travel	727	492	502	10	2.0%
Support Services	5,383	4,248	4,438	190	4.5%
Other Related Expenses	8,248	11,544	11,887	343	3.0%
Total, Richland	51,872	55,200	53,836	-1,364	-2.5%
Full-Time Equivalents	364	372	339	-33	-8.9%
River Protection					
Salaries and Benefits	14,611	17,387	13,301	-4,086	-23.5%
Travel	150	242	247	5	2.1%
Support Services	1,665	546	658	112	20.5%
Other Related Expenses	2,308	2,900	3,062	162	5.6%
Total, River Protection	18,734	21,075	17,268	-3,807	-18.1%
Full-Time Equivalents	122	122	109	-13	-10.7%
Rocky Flats					
Salaries and Benefits	19,955	18,584	18,516	-68	-0.4%
Travel	427	137	140	3	2.2%
Support Services	1,433	1,748	1,886	138	7.9%
Other Related Expenses	3,875	3,730	3,909	179	4.8%
Total, Rocky Flats	25,690	24,199	24,451	252	1.0%
Full-Time Equivalents	188	177	161	-16	-9.0%
Savannah River					
Salaries and Benefits	44,484	46,222	43,947	-2,275	-4.9%
Travel	1,595	515	526	11	2.1%
Support Services	3,556	1,585	1,719	134	8.5%
Other	5,860	7,140	7,391	251	3.5%
Total, Savannah River	55,495	55,462	53,583	-1,879	-3.4%
Full-Time Equivalents	439	453	413	-40	-8.8%
Subtotal, Field Offices					
Salaries and Benefits	219,051	231,190	216,557	-14,633	-6.3%
Travel	7,051	3,834	3,913	79	2.1%
Support Services	28,527	15,464	17,000	1,536	9.9%
Other Related Expenses	35,879	42,786	45,099	2,313	5.4%
Total, Field Offices	290,508	293,274	282,569	-10,705	-3.7%
Full-Time Equivalents	2,114	2,218	1,996	-222	-10.0%

(dollars in thousands, whole FTEs)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Headquarters					
Salaries and Benefits	46,197	48,469	47,850	-619	-1.3%
Travel	1,974	1,038	1,082	44	4.2%
Support Services	24,721	13,137	13,636	499	3.8%
Other Related Expenses	10,114	13,316	13,090	-226	-1.7%
Total, Headquarters	83,006	75,960	75,658	-302	-0.4%
Full-Time Equivalents	395	435	405	-30	-6.9%
Subtotal Environmental Management					
Salaries and Benefits	265,248	279,659	264,407	-15,252	-5.5%
Travel	9,025	4,872	4,995	123	2.5%
Support Services	53,248	28,601	30,636	2,035	7.1%
Other Related Expenses	45,993	56,102	58,189	2,087	3.7%
Subtotal, Program Direction	$373,514	$369,234	$358,227	$-11,007	-3.0%
Full-Time Equivalents	2,509	2,653	2,401	-252	-9.5%
Use of Prior Year Balances					
Salaries and Benefits	-1,461	0	0	0	<999.9%
Travel	0	0	0	0	<999.9%
Support Services	0	0	0	0	<999.9%
Other Related Expenses	0	0	0	0	<999.9%
Total, Use of Prior Year Balances	-1,461	0	0	0	<999.9%
Full-Time Equivalents	0	0	0	0	<999.9%
Total Environmental Management					
Salaries and Benefits	263,787	279,659	264,407	-15,252	-5.5%
Travel	9,025	4,872	4,995	123	2.5%
Support Services	53,248	28,601	30,636	2,035	7.1%
Other Related Expenses	45,993	56,102	58,189	2,087	3.7%
Total, Program Direction	$372,053	$369,234	$358,227	$-11,007	-3.0%
Full-Time Equivalents	2,509	2,653	2,401	-252	-9.5%
Total Excluding Full Funding for Federal Retirements, Program Direction	$357,682	$354,622	$344,000	$-10,622	-3.0%

Public Law Authorization:

Public Law 95-61, “Department of Energy Organization Act (1977)

Public Law 107-66, “Energy and Water Development Appropriations Act, 2002"

Public Law 107-107, “National Defense Authorization Act for Fiscal Year 2002"

Detailed Program Justification

	(dollars in thousands)		
	FY 2001	FY 2002	FY 2003
Salaries and Benefits	$263,787	$279,659	$264,407

Provides funding for 2,401 full-time equivalent employees in FY 2003 with the responsibility for the overall direction and administrative support of the EM program, including both Headquarters and field personnel. The federal workforce performs a variety of functions that are inherently governmental such as program management, contract administration, and interagency and international coordination.

Travel	9,025	4,872	4,995

Includes all costs of transportation of persons, subsistence of travelers, and incidental travel expenses in accordance with Federal travel regulations which are directly chargeable to EM.

Support Services	53,248	28,601	30,636

Provides for technical and administrative support for cost effective short-term/intermittent requirements not available from within the Federal workforce.

Other Related Expenses	45,993	56,102	58,189

Provides for the physical and administrative support to the Federal workforce at both Headquarters and the field. The level of support provided by EM varies at each site depending on EM's role in relation to other Departmental programs. Examples of the type of support that may be provided include rents and utilities, supplies, printing, maintenance and repair of government vehicles and equipment; maintenance and renovations of buildings; janitorial and custodial services; transit operations (shuttle bus); ADP infrastructure maintenance and upgrades, computer support hotline; Internet services; alarm protection systems; employee health services; and other vendor services. At Headquarters, administrative costs are included in the Working Capital Fund, which EM contributes to through this account. This category also includes the cost of training the Federal workforce. A significant portion of these expenditures are fixed in nature and do not change in relation to the workforce. An example would be the cost of leased building space and computer network infrastructure costs.

Total Program Direction	$372,053	$369,234	$358,227

Explanation of Funding Changes from FY 2002 to FY 2003

		FY 2003 vs FY 2002 ($000)
#	EM-wide reduction of 252 full-time equivalent employees	$-18,523
#	Government-wide escalation factor for salaries, benefits, travel, support services, and other related expenses	6,204
#	Increase support services funding to a level 42% below FY 2001	1,312
Total Funding Change, Program Direction		$-11,007

Support Services

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Technical Support Service [a]					
Economic and Environmental Analysis	22,085	13,240	13,083	-157	-1.2%
Test and Evaluation Studies	4,341	2,022	2,311	289	14.3%
Total, Technical Support Services	26,426	15,262	15,394	132	0.9%
Management Support Services [b]					
Management Studies	7,371	3,476	3,832	356	10.2%
Training and Education	1,192	614	719	105	17.1%
ADP Support	6,634	3,211	3,417	206	6.4%
Administrative Support Services	11,625	6,038	7,274	1,236	20.5%
Total, Management Support Services	26,822	13,339	15,242	1,903	14.3%
Total, Support Services	53,248	28,601	30,636	2,035	7.1%

[a] Technical support services include, but are not limited to, determining feasibility of design considerations; development of specifications, system definition, system review and reliability analyses; trade-off analyses; economic and environmental analyses which may be used in the Department of Energy's preparation of environmental impact statements; and test and evaluation, surveys or reviews to improve the effectiveness, efficiency and economy of technical operations.

[b] Management support services include, but are not limited to, analyses of workload and work flow; directives management studies; automated data processing; manpower systems analyses; assistance in the preparation of program plans; training, and education; analyses of Department management processes; and any other reports or analyses directed toward improving the effectiveness, efficiency and economy of management and general administrative services.

Other Related Expenses

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	$ Change	% Change
Training	3,173	4,063	3,664	-399	-9.8%
Working Capital Fund	7,732	7,546	7,579	33	0.4%
Printing and Reproduction	600	714	767	53	7.4%
Rental Space	10,155	12,276	11,411	-865	-7.0%
Software Procurement/Maintenance Activities/Capital Acquisitions	3,037	4,858	5,238	380	7.8%
Other [a]	21,296	26,645	29,530	2,885	10.8%
Subtotal, Other Related Expenses	45,993	56,102	58,189	2,087	3.7%
Total, Other Related Expenses	45,993	56,102	58,189	2,087	3.7%

[a] Other services category includes, but is not limited to, an assortment of the following cost and services: maintenance and repair of government vehicles and equipment; maintenance and renovations of buildings; janitorial and custodial services; stenographic reporting and typing; recruitments and advertisements; transit operations (shuttle bus); computer support hotline; Internet Services; alarm protection systems; employee health services; and other vendor services.