

Site/Project Completion

Program Mission

The Defense Environmental Restoration and Waste Management, Site/Project Completion account, provides funding for projects that are expected to be completed by 2006 at sites or facilities where a Department of Energy (DOE) mission will continue (e.g., environmental management or nuclear weapons stockpile stewardship) beyond FY 2006.

This account includes projects and sites under the following operations offices: Albuquerque, Idaho, Richland, Office of River Protection, and Savannah River. In a limited number of cases, sites have been placed in the Site/Project Completion account even though there is no expectation of a continuing mission after cleanup is completed. In these instances, use of the Site Closure account would have created an additional appropriation control for an operations/field office with a limited amount of associated funding, thereby hindering managerial flexibility in the execution of projects at these sites.

Program Strategic Performance Goals

Accelerating cleanup and project completion are the central goals of the EM program. Environmental Management sites are working to reduce outyear costs by completing projects in the quickest, most efficient manner possible, thereby reducing life-cycle costs and schedules. The EM program will:

- # Manage environmental cleanup projects at DOE sites where EM has established the goal of completion of all EM projects by 2006 (except for long-term stewardship activities), but where there will be a continuing Federal workforce at the site to carry out enduring non-EM missions, such as nuclear weapons activities or scientific research.
- # Address the environmental risks across the DOE complex and ensure that facilities and activities pose no undue risk to public and worker safety and health.
- # Work aggressively with stakeholders and regulators to address the compliance challenges faced by the EM program.

One way EM is ensuring success is to manage the program based on sound performance measures that define and quantify programmatic strategic performance goals from the Departmental level down to the contractors performing the work. EM establishes specific performance measures and milestones on a project-by-project basis for the program within the context of the Environmental Quality Business Line and the Environmental Management Strategic Objectives. The EM program has been actively incorporating the requirements of the Government Performance and Results Act into its planning, budgeting, and management systems. 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 the goal of site closure and project completion.

The chart below contains a summary of EM corporate performance measures for this program account. Detailed performance measure information can be found in the site details that follow this program overview.

Annual Performance Results and Targets

	FY 2001 Actuals	FY 2002 Estimate	FY 2003 Estimate
Defense Site/Project Completion			
Number of Release Site Completions	8	5	1
Number of Facilities Decommissioned	4	5	0
Number of Facilities Deactivated	2	5	5
Volume of Transuranic Waste Shipped to WIPP for Disposal (m ³)	749	95	0
Volume of Mixed Low-Level Waste Treated (m ³)	561	0	731
Volume of Mixed Low-Level Waste Disposed (m ³)	978	613	947
Volume of Low-Level Waste Disposed (m ³)	12,044	6,285	5,997
Nuclear Material Stabilized - Pu Residue (kg bulk)	506	1,231	1,387
Nuclear Material Stabilized - Pu Metal/Oxides (containers)	426	110	263
Spent Nuclear Fuel Moved to Dry Storage (MTHM)	127	597	582

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 Appropriation and FY 2002 Appropriation have been adjusted to reflect the following comparabilities: movement of projects and/or activities between appropriations and/or program accounts; creation of a separate Multi-Site account; and shifts of projects and/or activities between sites.

Funding Profile

(dollars in thousands)

	FY 2001 Comparable Appropriation	FY 2002 Original Appropriation	FY 2002 Adjustments	FY 2002 Comparable Appropriation	FY 2003 Request
Site/Project Completion	1,133,993	942,562	0	942,562	787,950
Total, Defense Site/Project Completion	1,133,993	942,562	0	942,562	787,950

Public Law Authorization:

- Public Law 95-91, "Department of Energy Organization Act (1977)"
- Public Law 103-62, "Government Performance and Results Act of 1993"
- Public Law 106-377, "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"

**Environmental Management/Defense Environmental
Restoration and Waste Management/Site/Project
Completion**

FY 2003 Congressional Budget

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	\$ Change	% Change
Albuquerque Operations Office	64,535	52,865	32,925	-19,940	-37.7%
Idaho Operations Office	135,363	63,939	54,601	-9,338	-14.6%
Oakland Operations Office	1,977	762	0	-762	-100.0%
Office of River Protection	1,297	2,000	5,125	3,125	156.3%
Richland Operations Office	488,140	437,375	357,419	-79,956	-18.3%
Savannah River Operations Office	442,681	385,621	337,880	-47,741	-12.4%
Total, Defense Site/Project Completion	1,133,993	942,562	787,950	-154,612	-16.4%

Albuquerque

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Site/Project Completion account, carried out by the Albuquerque Operations Office, is to support cleanup activities at six geographic sites in five states. These sites include the Kansas City Plant in Missouri; the Pantex Plant in Texas; the Sandia National Laboratory sites in California and New Mexico; the Pinellas Plant in Florida; and the South Valley Superfund Site in New Mexico.

The Albuquerque Operations Office also has responsibility for miscellaneous programs such as the Waste Management Education and Research Consortium, Historically Black Colleges and Universities, Innovative Treatment Remediation Demonstration Program, Norfolk State University Center for Materials Research, and Agreement-in-Principle with Texas.

Program Goal

The Albuquerque Operations Office goal is to complete cleanup of as many geographic sites under its cognizance in this account. Groundwater treatment and monitoring at these sites will continue beyond FY 2006 under the responsibility of the Office of Defense Programs, which has continuing missions at these sites.

Program Objectives

Historically, the Albuquerque Operations Office's primary mission has been to manage sites that were involved in the research, development, production, and maintenance of nuclear weapons.

The objective of the program is to complete all identified restoration and waste disposition. Nearly all of the land is expected to be available for other programmatic uses, with monitoring continuing at several sites.

Significant Accomplishments and Program Shifts

Albuquerque Miscellaneous Programs

- # Issue fiscal year progress report for the Innovative Treatment Remediation Demonstration Program (FY 2001/FY 2002/AL002).

- # Continue Waste Management Education and Research Consortium Annual Report (June 28, 2002), which is a contract requirement and demographic report for the President required by law (FY 2002/AL002).
- # Prepare final report Cooperative Agreement for Historically Black Colleges and Universities/Minority Institutions Environmental Technology Consortium (FY 2002/AL002).

South Valley Superfund Site

- # Groundwater remediation and monitoring will continue, managed by General Electric using funds prepaid by the Department of Justice. The Department of Energy is providing support to the Department of Justice in defending the State lawsuit. Legal expenses to be incurred by American Car and Foundry in defending the South Valley legal action pursuant to contractual obligations are planned and included (FY 2002/AL003).
- # Provide community outreach and support of DOE environmental activities (FY 2002/AL003).

Kansas City Plant

- # Completed corrective actions to stop contamination leak around the southern end of the Iron Filing Passive Treatment Iron Wall project (FY 2001/AL007).
- # Completed 93 percent installation of a new Interceptor Well System (FY 2001/AL007).
- # Installed eight new pumping wells and two existing wells (FY 2001/AL007).
- # The Corrective Measures Study for the 95th Terrace Site has been rescheduled to September 2003 (FY 2002/AL007).
- # Other planned activities for FY 2002 include routine Program Management oversight and administration, continuing operation of the groundwater treatment system, activation of new interception well system, sampling and analysis of the groundwater monitoring wells, drilling, well maintenance, and preparation of groundwater reports to submit to the regulators (FY 2002/AL007).

Pantex Plant

- # Completed groundwater protection plan modification to include protection of Ogallala aquifer in response to the March 2000 discovery of contaminants in the deep Ogallala Aquifer beneath the Pantex Site (FY 2001/AL014).
- # Completed burning grounds soil investigation (FY 2001/AL014).
- # Continue groundwater corrective measure construction and soil assessment activities (FY 2001/FY 2002/AL014).

Sandia Environmental Restoration Project

- # Continue groundwater monitoring of all required units, hazardous and radioactive remediation-derived waste shipments, completion of Voluntary Corrective Measures and seven No Further Action proposals submitted (FY 2001/FY 2002/AL018).
- # Completed excavation of the Chemical Waste Landfill to 12 feet ahead of schedule (FY 2001/AL018).

- # Completion of site-wide plug and abandonment well per plan (FY 2001/AL018).
- # Removal of sites from permit as baselined (FY 2001/AL018).
- # Completion of seven release site clean-ups (FY 2001/AL018).
- # Multiple successful negotiations dialogs with regulators, public meetings, and stewardship activities (FY 2001/AL018).
- # Continue sampling and start of backfill at the Chemical Waste Landfill excavation (FY 2002/AL018).
- # Submittal of Mixed Waste Landfill Corrective Management Study Plan to regulator (FY 2002/AL018).
- # Start of thermal desorption late in FY 2002 (FY 2002/AL018).

Pinellas Plant

- # Annual payment for Health Insurance and Benefit Contributions (FY 2001/AL019).
- # Partial annual payment for Health Insurance and Benefit Contributions (September 30, 2002) (FY 2002/AL019).

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
AL-002 / Albuquerque Miscellaneous Programs (WERC, HBCU, ITRD, NSUC, AIP-TX/MO)	7,002	2,379	1,190
AL-003 / South Valley Superfund Site	1,998	1,957	979
AL-007 / Kansas City Environmental Restoration Project	3,391	2,475	2,370
AL-014 / Pantex Plant Site Remediation Project	16,369	13,447	10,518
AL-018 / Sandia ER Project	31,642	21,992	16,773
AL-019 / Pinellas Plant Close-out and Administration of Post-Employment Benefits	3,983	1,904	952
AL-029 / Accelerate Land Parcels Transfer	0	8,568	0
AL-033 / Missouri Agreement-in-Principle	150	143	143
Total, Albuquerque	64,535	52,865	32,925

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	\$ Change	% Change
Albuquerque Operations Office	7,152	2,522	1,333	-1,189	-47.1%
Kansas City Plant	3,391	2,475	2,370	-105	-4.2%
Los Alamos National Laboratory	0	8,568	0	-8,568	-100.0%
Pantex Plant	16,369	13,447	10,518	-2,929	-21.8%

Environmental Management/Defense Environmental Restoration and Waste Management/Site/Project Completion/Albuquerque

FY 2003 Congressional Budget

Pinellas Plant	3,983	1,904	952	-952	-50.0%
Sandia National Laboratories	31,642	21,992	16,773	-5,219	-23.7%
South Valley	1,998	1,957	979	-978	-50.0%
Total, Albuquerque	64,535	52,865	32,925	-19,940	-37.7%

Metrics Summary

	FY 2001	FY 2002	FY 2003
Release Site			
Cleanups	7	1	0
Facilities Deactivated			
During Period	0	0	0

Site Description

Albuquerque Operations Office

The Department of Energy Albuquerque Operations Office manages, coordinates, tracks, and assists in the implementation of programs at the Kansas City Plant, the Pantex Plant, the Pinellas Plant, the Sandia National Laboratories, and the South Valley Superfund Site. Legal Drivers at Albuquerque include the Resource Conservation and Recovery Act; Comprehensive Environmental Response, Compensation, and Liability Act; National Environmental Policy Act; State laws and codes; and DOE Orders.

Kansas City Plant

The Kansas City Plant is part of a Federal complex located in south Kansas City, Missouri. In FY 1993, the Department shut down several facilities across the country and consolidated the production of non-nuclear components for nuclear weapons at the Kansas City Plant. The site is comprised of 42 release sites. Advanced technologies (Iron Filing Passive Treatment and Six-Phase Heating) are being employed to reduce soil contamination and to reduce groundwater cleanup time and cost. Activities necessary to transition to a long-term surveillance and maintenance program will also be performed when cleanup nears completion. Institutional controls and groundwater treatment and monitoring will continue indefinitely after cleanup efforts are completed. In FY 1998, the Office of Defense Programs took financial and programmatic responsibility for waste management activities.

Pantex Plant

The Pantex Plant is located near Amarillo, Texas, and has responsibility for dismantlement and maintenance of the Nation's nuclear weapons stockpile and storage of plutonium from dismantled weapons. At the Pantex Plant, the EM activities consist primarily of cleanup of contaminated soils and groundwater. In FY 1994, the site was placed on the National Priorities List, thereby requiring remediation under the Comprehensive Environmental Response, Compensation, and Liability Act authority. In March 2000, contamination of the Ogallala Aquifer beneath the site was discovered, and it has impacted project completion. Additional contamination has been found in the Burning Ground area requiring unplanned remediation and 130 release sites requiring rework are being addressed, thereby extending the project end date. Groundwater pump and treat will likely need to continue after cleanup actions are complete; however, technology development activities are underway through the Innovative Treatment Remediation Demonstration program to try to accelerate groundwater cleanup at the Pantex Plant.

Pinellas Plant

In September 1997, remediation of the Pinellas Plant was completed and the site was transferred to Pinellas County. In December 1998, DOE completed all remaining administrative activities at Pinellas and vacated the site, except for continuing groundwater remediation overseen by the Grand Junction Office. The Department of Energy will continue annual payments for Pinellas post-contract medical, pension, and other contractor worker retirement benefits.

Sandia National Laboratories-New Mexico

The Sandia National Laboratories-New Mexico site located in Albuquerque, New Mexico, is a research and development facility with a primary mission of developing and testing non-nuclear components of nuclear weapons. The Sandia Environmental Restoration Project is comprised of 220 release sites and areas of concern of which over 180 sites have been recommended for no further action. Major restoration efforts involve the remediation of inactive waste disposal and release sites at Albuquerque and other off-site locations. These sites have known or suspected releases of hazardous, radioactive, or mixed waste.

South Valley Superfund Site

The Department is a Potentially Responsible Party at the South Valley site in New Mexico. Currently, groundwater monitoring and groundwater remediation system operation and maintenance activities are ongoing at this site. The Government has prepaid its share of remediation costs through the year 2003. A new buy-out settlement to cover the years beyond 2003 is expected to be negotiated.

The State of New Mexico has filed a suit against the U.S. Government and other parties for natural resource damages resulting from contamination of groundwater. The State estimates that the

groundwater damages could be \$260,000,000. The State has also filed a claim for damages resulting from depression of real estate values and loss of tax revenues for about \$2,000,000,000.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

The installations at the Albuquerque Site are managed through various performance based management and operating contracts or cost-plus-award fee contracts to assure the most cost-effective services to the government. The scope planned for FY 2003 has been reviewed and is appropriate to meet the goals of the sites as outlined in the EM sites' baseline planning data. Most of the projects included in this section of the budget have had an independent cost review of the scope, and the funds requested for FY 2003 are appropriate to perform the activities.

AL-002 / Albuquerque Miscellaneous Programs (Waste Management Education and Research Consortium, Historically Black Colleges and Universities, Innovative Treatment Remediation Demonstration Program, Norfolk State University Center for Materials Research, Texas/ Agreement-in-Principle) **7,002 2,379 1,190**

Provides financial assistance for grants, cooperative agreements, innovative remediation technologies, and other analytical research.

The Norfolk State University Center grant is scheduled to expire on September 29, 2002, following a one-year no-cost extension to the grant. The Waste Management Education and Research Consortium cooperative agreement extends through June of 2007. The FY 2003 activities will consist of environmental education and research initiatives, in accordance with the long-range Waste Management Education and Research Consortium strategic plan. The Historically Black Colleges and Universities cooperative agreement is scheduled to expire during FY 2002.

Key Milestones
Eleventh Annual Design Contest for the Waste Management Education and Research Consortium (April 2001).
Waste Management Education and Research Consortium Annual Report (September 2001).
FY 2002 budget approved for Texas Agreement-in-Principle (September 2001).
Fiscal Year progress report for Innovative Treatment Remediation Demonstration (September 2001).
Review Texas Agreement-in-Principle FY 2002 Performance (September 2002).
FY 2002 progress report for Innovative Treatment Remediation Demonstration (December 2002).

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

- # FY 2003 Review and approve budget for Texas Agreement-in-Principle (December 2002).
- # Historically Black Colleges and Universities/Minority Institutions Environmental Technology Consortium Annual Report (December 2002).

- # End of Cooperative Agreement for Waste Management Education and Research Consortium (February 2003).
- # End of Cooperative Agreement for Historically Black Colleges and Universities/Minority Institutions Environmental Technology Consortium (September 2003).

AL-003 / South Valley Superfund Site 1,998 1,957 979

The South Valley Superfund Site consists of two Operable Units that involve DOE as a Potentially Responsible Party. Remediation is complete for the San Jose 6 Operable Unit and groundwater monitoring is being conducted pursuant to the terms of the Record of Decision. For the Plant 83 Operable Unit, a pump and treat system has been in operation since 1994 for the shallow zone aquifer and since 1996 for the deep zone aquifer pursuant to the Record of Decision for that Operable Unit. The General Electric Corporation is managing the remediation and monitoring effort. Under an agreement reached with General Electric, the Air Force, and the Department of Justice, the Department of Justice has prepaid DOE's share of remediation and monitoring costs through the end of 2003. A subsequent agreement will be negotiated to cover costs beyond 2003.

- # Groundwater remediation and monitoring will continue, managed by General Electric using funds prepaid by the Department of Justice. The Department of Energy is providing support to the Department of Justice in defending the State lawsuit as well as continuing to fund legal expenses pursuant to contractual obligations if necessary.

Key Milestones

- # FY 2002 Technical support for natural resource damage assessment legal actions (September 2001).
- # Technical support for natural resource damage assessment legal actions (September 2002).

AL-007 / Kansas City Environmental Restoration Project 3,391 2,475 2,370

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

This project evaluates potentially contaminated areas and cleans up areas found to be a threat to human health or the environment through continuing groundwater treatment and disposal and disposition of soils contaminated with polychlorinated biphenyl and other solvents. Where little risk to human health and the environment exists, exposure risks will be managed through institutional controls. Soil with significant contamination above the water table will be excavated and disposed in certified off-site disposal facilities. Contaminated groundwater will be treated by an ultra-violet light, hydrogen peroxide treatment system prior to discharge into the sanitary sewer system. Discovery of polychlorinated biphenyls in late 1995 at the 95th Terrace area of the Kansas City Plant has added additional scope of work at this site.

- # Activities scheduled for 95th Terrace include: completion of the Corrective Measures Study and development of the Corrective Measures Implementation Work Plan. Continued operation of the groundwater treatment system, sampling and analysis of the groundwater monitoring wells, drilling, well maintenance and preparation of regulator required reports will continue.
- # Initiate implementation of a second phase of phytoremediation technology to reduce groundwater contamination.
- # Funding is baselined every three years beginning in FY 2003 for system upgrades and repairs to the Groundwater treatment system.

Key Milestones

- # Interceptor Well Design Amendment (January 2001).
- # Develop and submit validated baseline for the environmental restoration project completion (September 2001).
- # Develop and submit validatable baseline for environmental restoration project (September 2001).
- # Continue groundwater treatment (September 2001).
- # Continue groundwater sampling (September 2001).
- # Groundwater treatment and monitoring - 2001 Annual Report (March 2002).
- # Complete camera-based repairs-out falls 002/003 (September 2002).
- # 95th Terrace Site - Complete Corrective Measures Study (September 2003).
- # Submit groundwater treatment and monitoring - 2002 Annual Report (March 2003).
- # Continue groundwater treatment (September 2003).
- # Continue groundwater sampling and analysis (September 2003).

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

AL-014 / Pantex Plant Site Remediation Project 16,369 13,447 10,518

This project provides for cleanup of contaminated soils and groundwater resulting from production and testing of explosive components for nuclear weapons. Remediation methodologies incorporated in this effort include excavation and off-site disposal of soils contaminated with high explosives/radionuclides, treatment of contaminated groundwater in the shallow perched aquifer, and implementation of containment technologies for closed landfills. These efforts are in accordance with the Resource Conservation and Recovery Act requirements. Recent discovery of contamination in the deep Ogallala drinking water aquifer has prompted extensive additional characterization and development of a protection program for Pantex groundwater. As a contingency plan for the Pantex Plant, the authority to exercise alternative offsite remediation strategies to specifically include an option to enter into negotiations with landowners to purchase private properties that have been contaminated by DOE operations.

- # Continue interim corrective measure fieldwork at the Solid Waste Management Unit 113, Building 12-24, Landfill 1, the Former Cooling Tower, and the Solid Waste Management Unit's within the Ditches and Playas Operable Unit.
- # Continue corrective measure operation, maintenance and monitoring at previously constructed landfill caps and the previously installed groundwater treatment system.
- # Continue in-situ bioremediation of high explosives contaminated soil sites within the High Explosives/Radiation Release Site Operable Units.
- # Complete groundwater corrective measure designs for remediation of perched groundwater outside the Pantex Plant property boundary.
- # Expand the perched groundwater treatment system on-site.

Metrics			
Release Site			
Cleanups	0	0	0
Facilities Deactivated			
During Period	0	0	0
Key Milestones			
#	Complete Final Landfills Group III Operable Unit Resource Conservation and Recovery Act Facility Investigation Report (August 2001).		
#	Complete Burning Grounds Soil Investigation (August 2001).		
#	Reduce waste generated from cleanup, stabilization, decontamination, and decommissioning by 10 percent (September 2001).		
#	Complete expansion of the Groundwater Treatability System (September 2001).		
#	Complete Final Fire Training Area Burn Pits Operable Unit Resource Conservation and Recovery Act Facility Investigation Report (September 2001).		

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

- | |
|--|
| <ul style="list-style-type: none"># Develop and submit a validated updated baseline for completion of the environmental restoration project (March 2002).# Complete final Miscellaneous Chemical Spills Operable Unit Resource Conservation and Recovery Act Facility Investigation Report (March 2002).# Complete final miscellaneous HE/RAD Sites Operable Unit Resource Conservation and Recovery Act Facility Investigation Report (June 2002).# Complete Final Active Firing Site Operable Unit Resource Conservation and Recovery Act Facility Investigation Report (January 2003). |
|--|

AL-018 / Sandia Environmental Restoration Project 31,642 21,992 16,773

The mission of the Sandia Environmental Restoration Project is to complete all necessary corrective actions (assessment and remediation) at environmental restoration sites in the most expeditious and cost-effective manner while minimizing worker, public health, and environmental risks, addressing public concerns, and complying with all applicable Federal, state, and local laws. All the designated solid waste management units and other areas of concern will be remediated or placed under management controls in accordance with applicable State and Federal requirements. Recent discovery of polychlorinated biphenyls and additional radioactive wastes at the Chemical Waste Landfill has prompted extensive cleanup efforts. Currently, remediation efforts at the Chemical Waste Landfill is near completion.

- # Review and submit Chemical Waste Landfill Voluntary Corrective Measure report and complete backfill.
- # Continue Corrective Action Management Unit waste operations.
- # Continue groundwater monitoring activities with well installations.
- # Continue Hazardous Solid Waste Amendment closure activities.
- # Continue well replacement and monitoring at Tizeras Arroyo.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Metrics			
Release Site			
Cleanups	7	1	0
Key Milestones			
#	Submit Site 2 No Further Action to the New Mexico Environment Department (September 2001).		
#	Complete Chemical Waste Landfill excavation per baseline (June 2001).		
#	Complete site-wide characterization well plug and abandonment (August 2001).		
#	Submit seven No Further Action proposals for review (September 2001).		
#	Submit application for removal of sites from permit per baseline (May 2001).		
#	Submit Mixed Waste Landfill Corrective Measures Study Plan to New Mexico Environment Department, Municipal Waste Lechate (February 2002).		
#	Submit one No Further Actions to the New Mexico Environment Department (September 2002).		
#	Start Core Action Management Unit waste treatment (August 2002).		
#	Complete low temperature thermal desorption treatment (December 2002).		
#	Complete field work landfill excavation Voluntary Corrective Measure at the Chemical Waste Landfill, S74 (December 2002).		
#	Submit Chemical Waste Landfill draft Corrective Measures Study report to the New Mexico Environment Department (June 2003).		
#	Complete well installation and development at Lurance Canyon Burnsite, S94 (January 2003).		
#	Start backfill of Classified Waste Landfill, S2 (August 2003).		

AL-019 / Pinellas Plant Close-out and Administration of Post-Employment Benefits 3,983 1,904 952

This project provides payments to former contractor employees pursuant to employee reduction-in-force requirements and administration of DOE liabilities associated with contractor employee retirement benefits. These payments will continue for approximately 50 years.

- # Partial annual payment for Health Insurance and Benefit Contributions (September 30, 2003).
- # Supports less than half of payment needed for medical insurance. As other bills are received, Albuquerque will prioritize activities to ensure that bills will be paid.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Key Milestones		
#	Annual payment for health insurance and pension contributions (September 2001).	
#	Partial payment for health insurance and pension contributions (September 2002).	
#	Partial payment for health insurance and pension contributions (September 2003).	

AL-029 / Accelerated Land Parcels Transfer **0** **8,568** **0**

This project support Congressional direction to expedite the remediation and conveyance of up to 2,000 acres of land for the use of Pueblo of San Ildefonso and approximately 100 acres to the County of Los Alamos, consistent with the direction of Section 632 of Public Law 105-119.

No funding requested in the PBS in FY 2003.

Activities associated with the Public Law are included with the rest of environmental restoration activities in PBS AL-009/Los Alamos National Laboratory Environmental Restoration in the Defense Post 2006 Completion account.

AL-033 / Missouri Agreement-in-Principle **150** **143** **143**

The Missouri Agreement-in-Principle supports environmental programs at the Kansas City Plant, review of technical reports, emergency response, and environmental monitoring and analysis, and stakeholder and regulatory issue resolution.

Provides community outreach and support of DOE environmental activities.

Key Milestones		
#	Approve FY 2002 budget for the Kansas City Plant agreement-in-principle (September 2001).	
#	Approve FY 2003 budget for agreement-in-principle. Partial funding for Missouri agreement-in-principle (December 2002).	

Total, Albuquerque **64,535** **52,865** **32,925**

Explanation of Funding Changes

FY 2003 vs. FY 2002 (\$000)

AL-002 / Albuquerque Miscellaneous Programs (WERC, HBCU, ITRD, NSUC, AIP-TX/MO)

Decrease in funding reflects the expiration of the Norfolk State University Center for Materials Research grant prior to FY 2003, and the Waste Management Education and Research Consortium and the Historically Black Colleges and Universities cooperative agreements expire during FY 2003 with no FY 2003 funding. The FY 2003 funding for the Texas Agreement in Principle and Analytical Labs remains constant with FY 2002 -1,189

AL-003 / South Valley Superfund Site

Decrease in funding provides for legal fees per government contract -978

AL-007 / Kansas City Environmental Restoration Project

Decrease in funding reflects limited routine program management oversight and administration, and groundwater monitoring/treatment activities -105

AL-014 / Pantex Plant Site Remediation Project

Decrease in funding will delay groundwater remediation activities -2,929

AL-018 / Sandia Environmental Restoration Project

Decrease in funding reflects completion of chemical waste landfill remediation -5,219

AL-019 / Pinellas Plant Close-Out and Administration of Post-Employment Benefits

Reflects partial payment at the FY 2003 annual liability established by the Pinellas Site Closure Agreement to be paid for retirement benefits of workers terminated when the plant was closed -952

AL-029 / Accelerated Land Parcels Transfer

Decrease in funding reflects a one-year congressional funding appropriation for FY 2002. No funding is requested in FY 2003 -8,568

Total Funding Change, Albuquerque	-19,940
---	---------

Idaho

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Site/Project Completion account, at the Idaho National Engineering and Environmental Laboratory is to safely manage and dispose of transuranic waste, mixed low-level waste, low-level waste, hazardous waste, and other waste, while maintaining partial compliance with applicable requirements and agreements, particularly the Idaho Settlement Agreement, and perform environmental restoration according to the Federal Facility Agreement and Consent Order requirements and the Comprehensive Environmental Response, Compensation, and Liability Act.

Cleanup activities will also be supported at two Grand Junction sites, the Maxey Flats site in Kentucky, and the Pinellas Plant in Florida. These activities were transferred to the Idaho Operations Office from the Albuquerque Operations Office.

Program Goal

The goal of this portion of the Idaho program is to complete, by FY 2006, cleanup of several waste streams and release sites, dispose of all of the low-level legacy waste and most of the mixed low-level waste at the Idaho National Engineering and Environmental Laboratory. Low-level waste, mixed low-level waste, and other waste will be treated, stored, and disposed in compliance with regulatory requirements and agreements. Environmental restoration activities will be completed for Waste Area Groups 1, 4, and 5 (Test Area North, Central Facilities Area, and Power Burst Facility/Auxiliary Reactor Area).

The DOE's responsibility as a potential responsible party for the Comprehensive Environmental Response Compensation, and Liability Act required remedial action activities at the Maxey Flats Disposal Site will be satisfied by FY 2004, when the last potentially responsible party payment is made.

Program Objectives

One objective of this program is to complete remediation efforts, maintain the site infrastructure for the long-term continuing mission, and manage waste streams, including transuranic waste shipments off-site, in order to free resources to apply to the long-term continuing cleanup of the Idaho National Engineering and Environmental Laboratory and comply with the Idaho Settlement Agreement.

Another objective of the Environmental Management program at the Idaho National Engineering and Environmental Laboratory is to use alternate or innovative technologies to accelerate cleanup schedules and reduce costs. These new technologies will ensure completion of the primary goals. The principal support for Project Completion efforts has been for environmental restoration of soil and groundwater and for the treatment, storage, and disposal of transuranic and mixed low-level waste.

Significant Accomplishments and Program Shifts

- # Program Shift: FY 2002/FY 2003 funding for the Idaho National Engineering and Environmental Transuranic Waste PBS (ID-WM-103) has been shifted to the Defense Environmental Restoration and Waste Management Post 2006 Completion account.
- # Began preparation of the V-tanks remedial design/remedial action work plan and completed sampling of two release sites (FY 2001/ID-ER-101).
- # Continue the Operable Unit 1-07B (injection well) monitoring, new pump and treat facility operations, and in-situ bio-remediation activities (FY 2002/ID-ER-101).
- # Remediated the Central Facilities Area transformer yard and initiated removal of contaminated soil sites (FY 2001/ID-ER-104).
- # Complete the Comprehensive Environmental Response, Compensation, and Liability Act five-year review of long-term monitoring activities and landfill cap maintenance and continue cleanup of Central Facilities Area 4-08 drainfield (FY 2002/ID-ER-104).
- # Closure of the Auxiliary Reactor Area-13 Sanitary Sewer Leach Field and completed Septic Tank (FY 2001/ID-ER-105).
- # Continue Operable Unit 5-12 remedial action for the Auxiliary Reactor Area-16 mixed waste tank. Maintenance and monitoring of the Stationary Low Power Reactor-1 cap and sample of groundwater in the Auxiliary Reactor Area/Power Burst Facility area (FY 2002/ID-ER-105).
- # Completed all security work and building upgrades in CPP-651 Unirradiated Fuel Storage Facility (FY 2001/ID-OIM-105).
- # Complete construction and system operability testing for the Electrical and Utility System Upgrade Project Priority 2 Panels and for the Facility Electrical Upgrades. Complete construction and system operability testing on the substation 60 third diesel generator (FY 2002/ID-OIM-106).
- # Completed title design of the Health Physics Instrumentation Laboratory and initiated construction activities (FY 2001). Delivery and installation of government furnished equipment and facility construction completion (FY 2002/ID-OIM-109).
- # Completed transfer of CPP-603 spent fuel basins to deactivation. Completed removal of (50) spent fuel storage racks from storage basins (FY 2001/ID-OIM-110).
- # Continue CPP-603 (Underwater Fuel Receiving and Storage Building) basin sludge removal. Prepare the Resource Conservation and Recovery Act closure plan for the VES-106 system and submit to the

State of Idaho for approval. Begin documentation to support deactivation of the Power Burst Facility canal (FY 2002/ID-OIM-110).

- # Complete characterization of Central Facilities Area - 617, Hot Laundry Facility; complete decontamination and decommissioning of Test Area North - 615, Maintenance Shop (FY 2002/ID-OIM-110).
- # Performed required Resource Conservation and Recovery Act inspections. Performed minor cleanup in several buildings and executed some corrective maintenance work. Providing surveillance and maintenance allows buildings and structures to remain in a safe shutdown mode as they await decontamination and decommissioning (FY 2002/ID-OIM-112). (In FY 2003, these activities will be transferred to ID-OIM-110).
- # Complete final design for Cathodic Protection System Expansion Line-Item Construction Project and initiate construction activities (FY 2002/ID-OIM-117).
- # Initiate preliminary design activities for the Sitewide Idaho National Engineering and Environmental Laboratory Information Network as requested in the Project Engineering and Design datasheet 01-D-414 (FY 2002/ID-PED).
- # Continue to operate waste generator services as a centralized function out of waste management. Complete lead cask dismantlement commitments per the site treatment plan. Continue mixed low-level waste off-site treatment and disposal activities. Continue low-level waste disposal in the Radioactive Waste Management Complex Subsurface Disposal Area. Continue management of mixed low-level storage facilities. Continue off-site treatment and disposal of hazardous waste. Continue consolidated packaging and transportation activities. Close the Waste Experimental Reduction Incinerator. Management of Waste with No Identified Path to Disposal for eventual disposition (i.e., Advanced Test Reactor beryllium blocks) (FY 2002/ID-WM-101).
- # Continued to characterize and certify transuranic waste for shipment to the Waste Isolation Pilot Plant (FY 2001/ID-WM-103).
- # Provided Resource Conservation and Recovery Act-compliant storage for transuranic waste and develop remote-handled transuranic characterization and certification processes (FY 2001/ID-WM-103).
- # Provided facility base operations support services to ensure safe, environmentally compliant operations, maintenance, environment, safety and health support, updates to safety and health documents, and required monitoring and inspections (FY 2001/FY 2002/ID-WM-103).

Pinellas Plant

- # Implement Northeast site Non-Aqueous Phase Liquid treatment technology (FY 2002/ID-GJ-102).
- # Continue Biosparge operations at 4.5 Acre site (FY 2002/ID-GJ-102).

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
ID-ER-101 / Test Area North Remediation	8,994	11,296	12,388
ID-ER-104 / Central Facilities Area Remediation	1,872	4,890	2,619
ID-ER-105 / Power Burst Facility/Auxiliary Reactor Area	1,744	1,046	2,206
ID-GJ-101 / Maxey Flats Field Management Project	1,165	570	600
ID-GJ-102 / Pinellas STAR Center Environmental Restoration Project	3,334	5,700	6,244
ID-OIM-105 / Security Facilities Consolidation Project	28	0	0
ID-OIM-106 / Electrical and Utility Systems Upgrade Project, Idaho Chemical Processing Plant	1,655	448	0
ID-OIM-107 / INEEL Electrical Distribution Upgrade	51	0	0
ID-OIM-109 / Health Physics Instrument Laboratory	4,388	2,970	0
ID-OIM-110 / Pre-FY 2007 Surplus Facility Deactivation Project	9,339	8,690	8,658
ID-OIM-114 / Sitewide Idaho National Engineering and Environmental Laboratory Information Network	100	204	0
ID-OIM-117 / Cathodic Protection System Expansion	65	3,277	1,244
ID-PED / Preliminary Project Engineering and Design	499	754	0
ID-WM-101 / Idaho National Engineering and Environmental Laboratory Low-Level Waste/Mixed Low-Level Waste/Other Waste Program	25,924	24,094	20,642
ID-WM-103 / Idaho National Engineering and Environmental Transuranic Waste	76,205	0	0
Total, Idaho	135,363	63,939	54,601

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	\$ Change	% Change
Grand Junction Office	1,165	570	600	30	5.3%
Idaho National Engineering and Environmental Laboratory	130,864	57,669	47,757	-9,912	-17.2%
Pinellas	3,334	5,700	6,244	544	9.5%
Total, Idaho	135,363	63,939	54,601	-9,338	-14.6%

Metrics Summary

	FY 2001	FY 2002	FY 2003
Release Site			
Cleanups	1	4	1
Low-Level Waste			
Disposal (m ³)	4,486	1,659	2,041
Mixed Low-Level Waste			
Treatment (m ³)	115	0	0
Disposal (m ³)	818	345	160
Transuranic Waste			
Shipped to WIPP for Disposal (m ³)	687	0	0
Facilities			
Decommissioning-Cleanup	2	1	0
Facilities Deactivated			
During Period	0	1	0

Site Description

Grand Junction

The Grand Junction Office provides oversight for Maxey Flats, and the Pinellas Plant. For Pinellas, operation and maintenance of groundwater remediation systems will continue at a number of sites.

Idaho National Engineering and Environmental Laboratory

The Idaho National Engineering and Environmental Laboratory, established as the National Reactor Testing Station in 1949, occupies 890 square miles in the Snake River Plain of Southeastern Idaho. Over the years, 52 reactors have been constructed and operated at the Idaho National Engineering and Environmental Laboratory. This site is owned by DOE and as of October 1999, is managed by Bechtel, Babcock and Wilcox Inc. There are nine primary facilities at the Idaho National Engineering and Environmental Laboratory as well as administrative, engineering, and research laboratories in Idaho Falls, approximately 50 miles east of the site. Other activities at the Idaho National Engineering and Environmental Laboratory over the last five decades include nuclear technology research, defense programs, engineering testing and operations, as well as ongoing projects to develop, demonstrate, and transfer of advanced engineering technology and systems to private industry. These activities have resulted in an inventory of high-level waste and the continued generation of spent nuclear fuel, mixed low-level waste, and low-level waste. Further, the Idaho National Engineering and Environmental Laboratory has an inventory of stored transuranic waste, which was primarily generated by and received from other DOE sites. Idaho National Engineering and Environmental Laboratory activities have also resulted in contaminated areas and potential release sites requiring remediation under the Comprehensive Environmental Response, Compensation, and Liability Act, and other environmental

regulations. Discontinued activities at the Idaho National Engineering and Environmental Laboratory have left a number of surplus facilities. The deactivation program provides for the deactivation of these surplus facilities placing them in a safe, stable, low-cost condition, requiring minimal surveillance and maintenance.

Maxey Flats

The Maxey Flats disposal site, located in Kentucky, was a low-level radioactive waste site licensed under the Atomic Energy Act that is now a Comprehensive Environmental Response, Compensation, and Liability Act site where DOE is responsible for contributing a Potentially Responsible Party payment for the cleanup of the site. Maxey Flats is considered one release site. The Department's responsibility for remedial action is limited to making annual Potentially Responsible Party payments. It is anticipated that DOE's responsibility will be satisfied with the final Potentially Responsible Party payment in FY 2003.

Pinellas Plant

In September 1997, remediation of the Pinellas Plant was completed and the site was transferred to Pinellas County. In December 1998, DOE completed all remaining administrative activities at Pinellas and vacated the site, except for continuing groundwater remediation overseen by the Grand Junction Office.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

The Idaho site is managed through an incentivized integrated management and operating contract, with fixed-price subcontracts and the installations at the Albuquerque site are managed through various performance based management and operating contract, both to assure the most cost-effective services to the Government. At Idaho, contract performance is driven and measured through the Performance Evaluation Management Plan process which updates, annually, the performance requirements by defining 5-year critical outcomes, 1 to 3-year performance objectives, and current year performance criteria. The percentage of incentivized measures is increased each year. The scope planned for FY 2003 has been reviewed and is appropriate to meet many of the requirements of the Settlement Agreement with the State of Idaho and other compliance requirements while also maintaining the capability of the Idaho National Engineering and Environmental Laboratory to meet DOE mission objectives. Funds requested are appropriate to perform activities based on historical cost and engineering estimates.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

ID-ER-101 / Test Area North Remediation 8,994 11,296 12,388

Waste Area Group 1 has 10 Operable Units, containing 94 potential release sites, listed in the Federal Facilities Agreement/Consent Order. Activities associated with Waste Area Group 1 are legally mandated by the Federal Facilities Agreement/Consent Order and the Comprehensive Environmental Response, Compensation, and Liability Act. Funding ensures implementation of the Operable Unit 1-7B groundwater cleanup action providing containment of the contaminant plume and active aquifer remediation. A new Operable Unit 1-11 will be created to encompass new sites as they are identified. Two new sites are currently planned to be assigned to Operable Unit 1-11.

- # Continue Operable Unit 1-07B remedial action with continuation of groundwater monitoring, new pump and treat facility operations, monitored natural attenuation and in situ bioremediation activities.
- # Initiate remedial action of the V-tanks and managing the tank content waste at approved storage facilities.
- # Conduct performance modeling and reporting at Test Area North (Operable Unit 1-07B).
- # Begin TSF-06 contaminated soil remedial action including removal and disposal at the Idaho Comprehensive Environmental Response, Compensation, and Liability Act Disposal Facility. Backfill with clean soil to replace a portion of the affected river bed of the Snake River.

Metrics			
Release Site			
Cleanup	1	0	0
Key Milestones			
# Operable Unit-1-10 Group 3 Draft Remedial Design/Remedial Action Work Plan to agencies (April 2003).			

ID-ER-104 / Central Facilities Area Remediation 1,872 4,890 2,619

Waste Area Group 4 consists of 52 potential release sites which require assessment as stipulated by the Federal Facilities Agreement/Consent Order and the Comprehensive Environmental Response, Compensation, and Liability Act. A final comprehensive Record of Decision for Operable Unit 4-13 was signed in July 2000, which details remedial activities at three sites.

- # Continue post-record of decision monitoring.
- # Begin contaminated soils remediation for Central Facilities Area-04 (Mercury Pond).

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Metrics			
Release Site			
Cleanups	0	0	1
Key Milestones			
# Complete Operable Unit 4-13 Central Facilities Area-08 Field Work (September 2002).			
# Submit Central Facilities Area 04 Remedial Design/Remedial Action Work Plan for Operable Unit 4-13 to Agencies (October 2002).			

ID-ER-105 / Power Burst Facility/Auxiliary Reactor Area 1,744 1,046 2,206

Waste Area Group 5 has 13 Operable Units listed in the Federal Facility Agreement/Consent Order. Activities associated with Waste Area Group 5 are legally required by the Federal Facilities Agreement/Consent Order and the Comprehensive Environmental Response, Compensation, and Liability Act. Operable Unit 5-12 consists of 4 sites and the comprehensive Record of Decision was approved in February 2000. Planned work involving contaminated soil remedial action will occur in FY 2003 and FY 2004.

- # Provide surveillance and institutional controls for installed waste covers to minimize intrusion, protect human health, and the environment.
- # Continue minimal program support functions.
- # Initiate the Phase-II contaminated soil remediation.

Metrics			
Release Site			
Cleanups	0	4	0

ID-GJ-101 / Maxey Flats Field Management Project 1,165 570 600

This project fulfills the Department's responsibilities as a potentially responsible party for the Comprehensive Environmental Response, Compensation, and Liability Act-required remedial action at the Maxey Flats Disposal Site, Kentucky. The DOE's responsibilities are limited to financial contributions for accomplishing the site remedial action.

- # Make full payment to Maxey Flats Steering Committee for consent decree liability as Potentially Responsible Party. The DOE's responsibilities are limited to financial contributions for accomplishing the site remedial action.

Key Milestones			
# Make partial annual payment for FY 2002 (July 2002).			

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Make annual payment for FY 2003 (October 2002).

ID-GJ-102 / Pinellas STAR Center Environmental Restoration Project **3,334** **5,700** **6,244**

Remediation of contaminated groundwater at the Pinellas Plant includes: Northeast site, Building 100/Old Drum Storage sites, 4.5 Acre Site, and Wastewater Neutralization/Building 200 Area. The 4.5 Acre site cleanup is regulated by the State Contamination Site Cleanup Program. The remaining sites are regulated as solid waste management units under the Hazardous and Solid Waste Amendment portion of the plant’s Environmental Protection Agency Resource Conservation and Recovery Act Part B permit. The Site was sold to Pinellas County in 1995 with the DOE maintaining responsibility for groundwater clean up. When site groundwater can meet land use classification of “Industrial with unrestricted access”, DOE’s responsibilities will be completed.

- # Perform site-wide water sampling, analyses, and reporting at the STAR Center and the privately owned 4.5-Acre Site.
- # 4.5-Acre Site - continue biosparge operations.
- # Northeast Site - operate and maintain current remedial action (recovery wells and airstripper system), oversee and assess performance of the selected Non-Aqueous Phase Liquid treatment.
- # Building 100/Drum Storage Area - operate two recovery wells, initiate reactive barrier technology to contain the Volatile Organic Compound plume.
- # Wastewater Neutralization Area/Bldg 200 - operate two recovery wells, perform sampling.

Key Milestones

- # Completed modifications to 4.5 Acre Site Treatment Systems (January 2001).
- # Initiated treatment of groundwater at the Wastewater Neutralization Site (February 2001).
- # Instituted treatment technology for Dense Non-Aqueous Phase Liquid remediation at Northeast Site (July 2001).
- # Initiate development of regulatory plans for Building 100 remediation technology (April 2002).
- # Field deploy Northeast Site Non-Aqueous Phase Liquid treatment technology (September 2002).
- # Start reactive barrier technology at Building 100 (September 2003).

ID-OIM-105 / Security Facilities Consolidation Project **28** **0** **0**

This project provides new facilities and equipment to support the Idaho Nuclear Technology and Engineering Center security organization.

- # No activity planned in FY 2002 or FY 2003. Completed all security work and building upgrades at the Unirradiated Fuel Storage Facility in FY 2001.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

**ID-OIM-106 / Electrical and Utility Systems Upgrade Project,
Idaho Chemical Processing Plant 1,655 448 0**

This project is to upgrade the Idaho Nuclear Technology and Engineering Center utility systems by correcting high risk life-safety, health, and environmental deficiencies. The work corrects safety deficiencies and will improve reliability and efficiency of electrical systems needed to support the site settlement agreement. This project was validated by DOE-Idaho Operations Office and Power Engineers of Hailey, Idaho.

Complete construction and system operability testing and project closeout activities with prior year funds.

ID-OIM-107 / INEEL Electrical Distribution Upgrade 51 0 0

This project provides for the planning, management, design, procurement, and construction activities to upgrade portions of the Idaho Engineering and Environmental Laboratory electrical distribution systems which provides numerous users at the Idaho Engineering and Environmental Laboratory with reliable electrical power.

No activity planned in FY 2003. Complete construction and project closeout in FY 2002 using prior year funds.

ID-OIM-109 / Health Physics Instrument Laboratory 4,388 2,970 0

The Health Physics Instrumentation Lab project will construct a replacement to provide reliable and safe radioactive detection equipment for all programs. Operations will include repair, calibration, dosimeter irradiation, and research and development required to support radiation detection equipment needs for the site. This facility will replace an existing facility, which is beyond design life, and is severely deteriorated. Deficiencies contribute to the inability to perform required functions in a safe and compliant manner. Deficiencies include inadequate design of shielded rooms for x-ray, gamma, and neutron source calibrations; inadequate environmental control; insufficient work space; and numerous asbestos, electrical code, fire protection and building structural issues. Original cost estimate and scope were validated by a DOE and site management and operating contractor team, in addition to an external/independent review. The construction phase is planned for completion in FY 2002.

Complete project closeout using prior year funds.

Key Milestones

Physical construction complete (September 2002).

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

ID-OIM-110 / Pre-FY 2007 Surplus Facility Deactivation

Project	9,339	8,690	8,658
----------------------	--------------	--------------	--------------

This project provides surveillance and maintenance of (176) radioactively contaminated excess facilities to maintain in a condition that reduces the risk to the public, site personnel, and the environment. This project provides for the deactivation of surplus facilities which reduce the cost and risk associated with surplus contaminated facilities. This includes removal of radioactive and hazardous materials, removal of uranium and other fissile materials, and isolation of the surplus facilities from ongoing operating and utility systems. The project supports compliance with Resource Conservation and Recovery Act and has been validated by the Idaho DOE project manager.

- # Prepare documentation and dispose of waste.
- # Perform surveillance and maintenance of transition facilities.
- # Develop plans and permits for removing water from the Power Burst Facility Canal, stabilize contamination, and deactivate.
- # Perform decontamination and decommissioning of Central Facilities Areas - 617 Hot Laundry Facility and project closeout.
- # Begin deactivation of the Materials Test Reactor canal including water removal and stabilization.
- # Initiate basin deactivation, sludge removal, and basin stabilization at Chemical Processing Plant - 603.
- # Initiate closure activities for the VES-106 Vessel.

Metrics			
Facilities			
Decommission-Cleanup	2	1	0
Facilities Deactivated			
During Period	0	1	0
Key Milestones			
# Submitted draft decontamination and decommissioning plan for the Materials Test Reactor, Power Burst Facility, and the Test Area North (March 2001).			
# Removed and packaged Chemical Processing Plant - 603 fuel storage racks (September 2001).			
# Complete sludge removal from Chemical Processing Plant - 603 basins (September 2002).			

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

ID-OIM-114 / Sitewide Idaho National Engineering and Environmental Laboratory Information Network 100 204 0

The Sitewide Information Network Project will provide upgraded communication links between and among operating areas at the Idaho National Engineering and Environmental Laboratory, and provide connections to external networks. Maintaining a capable and reliable communications network is essential to provide for adequate emergency operations, security, automated and remote radiation monitoring, and efficiency in program operations that supports DOE missions and full utilization of information technologies. The need for this project has been confirmed by an external independent review.

In FY 2003, the administration proposes to eliminate this project to permit Environmental Management to accelerate risk reduction elsewhere.

Key Milestones
Complete title design (September 2002).

ID-OIM-117 / Cathodic Protection System Expansion 65 3,277 1,244

The Idaho Nuclear Technology and Engineering Center has an extensive Cathodic Protection System installed that protects underground piping and structures from corrosion. Many of the vessels and piping contain or have contained high-level radioactive liquid wastes. These wastes contain significant amount of mixed radioactive fission products, actinides, and the Environmental Protection Agency listed chemicals. An incident or failure of these systems could cause State of Idaho Settlement Agreement milestones to be missed with significant political repercussion at State and Federal levels. A majority of the components have been in service since 1961 exceeding their design life of 20 years. An operational Cathodic Protection System is required, in order to comply with the State of Idaho Resource Conservation and Recovery Act Interim Status Part B Permit. The Cathodic Protection System is grouped into three systems; the first provides protection for the tank farm piping system, the second protects the underground fuel storage area vaults, and the third provides protection for underground utility systems, e.g. firewater system. Project Engineering and Design funds in the amount of \$499,000 in FY 2001 and \$104,000 in FY 2002 were requested under line-item 01-D-414.

Provides for design, procurement and construction activities. Included in the funding request for this project are \$3,152,000 for FY 2002 and \$1,119,000 for FY 2003 in capital funds.

Key Milestones
Architect/Engineer work completed (March 2002).
Start physical construction (June 2002).

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

ID-PED / Preliminary Project Engineering and Design 499 754 0

This project provides for Architect-Engineering (A-E) services (Title I and Title II) on construction projects. This allows designated projects to proceed from conceptual design into preliminary design (Title I) and definitive design (Title II). The design effort will be sufficient to assure project feasibility, provides the details of the scope, provides detailed estimates of construction costs based on the approved design and working drawings and specifications, and provides construction schedules including procurements. It will also be extensive enough so that construction can physically start or long-lead procurement items can be procured in the fiscal year in which construction appropriations are received.

- # Design funds are not required in FY 2003, but prior year funds support design activities for the Sitewide Idaho Engineering and Environmental Laboratory Information Network and the Cathodic Protection System Expansion project (02-D-402).

ID-WM-101 / Idaho National Engineering and Environmental Low-Level Waste/Mixed Low-Level Waste/Other Waste

Program 25,924 24,094 20,642

The project provides for the centralized daily management, treatment, storage and disposal of legacy and newly generated low-level waste and hazardous waste for the Idaho National Engineering and Environmental Laboratory. Legacy and newly generated mixed low-level waste and waste with no disposition path will be safely and compliantly stored. This Project also provides for low-level waste volume reduction and disposal at the Idaho National Engineering and Environmental Laboratory.

- # Provides for the on-site disposal of contact-handled and remote-handled low-level waste and off-site commercial disposal of the Resource Conservation and Recovery Act hazardous waste.
- # Provides for the safe operations, basic maintenance and oversight of the following waste areas: the low-level waste subsurface disposal area, the remote-handled low-level waste storage vaults, the mixed low-level waste storage facilities and the hazardous waste storage facility.
- # Provides for surveillance and maintenance of the Waste Reduction Operation Complex facilities to meet the Environmental Protection Agency and DOE requirements.
- # Provides for overall program management activities for the waste management program, including baseline planning guidance, change control reporting, task prioritization and performance measurement.
- # Provide for the treatment and disposal of the legacy mixed waste backlog at the Idaho National Engineering and Environmental Laboratory to satisfy Federal Facility Compliance Act Site Treatment Plan Milestones.
- # Provides for the processing and off-site recycling of the lead inventory as required by the Resource Conservation and Recovery Act.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

- # Closure of the Waste Experimental Reduction Facility will be completed on schedule by July 29, 2003, and closure certified by September 27, 2003, as mandated by the Resource Conservation and Recovery Act Closure Plan approved by the State of Idaho.
- # Provides for required minimum compliance for the low-level waste and mixed low-level waste program.

Metrics			
Mixed Low-Level Waste			
Disposal (m ³)	818	345	160
Treatment (m ³)	115	0	0
Low-Level Waste			
Disposal (m ³)	4,486	1,659	2,041
Key Milestones			
# Disposed of up to 4,486 m ³ of low-level waste (August 2001).			
# Disposed of 818 m ³ of low-level waste (August 2001).			
# Treated 115 m ³ of mixed waste (September 2001).			
# Ship mixed low-level waste offsite for treatment, storage and disposal (March 2002).			
# Remove all mixed low-level waste from Portable Storage Units (September 2003).			
# Waste Experimental Reduction Facility closure certification (September 2003).			

**ID-WM-103 / Idaho National Engineering and Environmental
Transuranic Waste** **76,205** **0** **0**

The mission of the Transuranic Waste Project is to provide environmentally safe and compliant management of contact-handled and remote-handled transuranic and mixed transuranic waste retrievably stored at the Radioactive Waste Management Complex Resource Conservation and Recovery Act storage modules. This includes the characterization, certification, and loading for transportation of at least 3,100 m³ of stored transuranic waste out of Idaho by December 31, 2002, to meet an enforceable agreement milestone under PBS ID-WM-103. The remainder of the stored transuranic waste will be processed for shipment out of Idaho in the Advanced Mixed Waste Treatment Project (PBS ID-WM-104 and ID-WM-105). Capabilities to retrieve and achieve disposition of remote-handled transuranic waste will be developed. Infrastructure support for Radioactive Waste Management Complex is provided to ensure compliance with authorization basis requirements necessary to accomplish project mission and maintain facility systems, structures, and components.

- # Activity transferred to the Defense Post 2006 Completion account in FY 2002.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Metrics			
Volume of Transuranic Waste			
Shipped to WIPP for Disposal (m ³)	687	0	0
Key Milestones			
#	Completed 687 m ³ of transuranic waste to the Waste Isolation Pilot Plant (Cum. 1,289 m ³) (September 2001).		
#	Complete shipment of 3,100 m ³ of contact-handled-transuranic waste to the Waste Isolation Pilot Plant per Settlement Agreement (December 2002).		

Total, Idaho	135,363	63,939	54,601
---------------------------	----------------	---------------	---------------

Explanation of Funding Changes

FY 2003 vs. FY 2002 (\$000)

ID-ER-101 / Test Area North Remediation

# Increase reflects remediation of the V-tanks and the decontamination and decommissioning of Test Area North 616.	1,092
---	-------

ID-ER-104 / Central Facilities Area Remediation

# Decrease reflects development of the Central Facilities Area-04 documentation and capping of the Central Facilities Area-08 drainfield with an engineered barrier will begin in FY 2002	-2,271
---	--------

ID-ER-105 / Power Burst Facility/Auxiliary Reactor Area

# Increase reflects initiation of soil remediation.	1,160
--	-------

ID-GJ-101 / Maxey Flats Field Management Project

# Increase fully funds the Maxey Flats Potential Responsible Party payment	30
--	----

ID-GJ-102 / Pinellas STAR Center Environmental Restoration Project

# Increase reflects initiation of reactive barrier at Building 100 area/Drum Storage Area	544
---	-----

ID-OIM-106 / Electrical and Utility Systems Upgrade Project, Idaho Chemical Plant Project

# Decrease reflects project closeout.	-448
--	------

FY 2003 vs. FY 2002 (\$000)

ID-OIM-109 / Health Physics Instrument Laboratory	
# Decrease reflects completion of construction.	-2,970
ID-OIM-110 / Pre-FY 2007 Surplus Facility Deactivation Project	
# No significant decrease.	-32
ID-OIM-114 / Sitewide Idaho National Engineering and Environmental Laboratory Information Network	
# In FY 2003, the administration proposes to eliminate this project to permit Environmental Management to accelerate risk reduction elsewhere.	-204
ID-OIM-117 / Cathodic Protection System Expansion	
# Decrease reflects construction nearing 75 percent completion.	-2,033
ID-PED / Preliminary Project Engineering and Design	
# No funding requested for FY 2003.	-754
ID-WM-101 / Idaho National Engineering and Environmental Low-Level Waste/Mixed Low-Level Waste/Other Waste Program	
# Decrease reflects closure of the Waste Experimental Reduction Incinerator	-3,452
Total Funding Change, Idaho	<u>-9,338</u>

Oakland

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Site/Project Completion account, managed through the Oakland Operations Office, is to plan and implement remediation and waste treatment, storage, and disposal activities at three sites, two in California and one in New York. The sites are the Lawrence Livermore National Laboratory, consisting of the Livermore Site and Site 300. Other DOE programs such as Defense Programs, Science, and Nuclear Energy's Naval Reactor Program continue to have operating facilities at these sites.

Program Goal

Environmental Management's programmatic goals are to ensure operating facilities and contaminated sites pose no undue risk to the public, worker health and safety; maintain compliance with applicable environmental laws; and manage risks associated with current and prior DOE operations.

Program Objectives

The program objective is to: assess, remediate, decontaminate and decommission contaminated sites and facilities; characterize, treat, minimize, store, and dispose of hazardous and radioactive waste. These program activities use an integrated approach to assess work and meet schedules; while also balancing risk, mortgage reduction, compliance, cost efficiencies, stakeholder input and implementation of enhanced performance mechanisms. At the Lawrence Livermore National Laboratory all legacy waste will be characterized and shipped off-site.

Significant Accomplishments and Program Shifts

- # Completed construction of all phases at the Decontamination and Waste Treatment Facility, and begin operational testing (FY 2001).
- # Begin full scale operation of the Decontamination and Waste Treatment Facility (FY 2002).
- # Continue closure of old Hazardous Waste Management Facilities (FY 2002).
- # Complete safety analysis review (FY 2002).

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
OK-027 / Lawrence Livermore National Laboratory Decontamination and Waste Treatment Facility	1,977	762	0
Total, Oakland	1,977	762	0

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	\$ Change	% Change
Lawrence Livermore National Laboratory (CA)	1,977	762	0	-762	-100.0%
Total, Oakland	1,977	762	0	-762	-100.0%

Metrics Summary

	FY 2001	FY 2002	FY 2003
The project in the Detailed Program Justification has associated metrics; however, no metrics are reportable in the 3-year budget profile.			

Site Description

Lawrence Livermore National Laboratory

The Lawrence Livermore National Laboratory is a multi-disciplinary research and development laboratory focused on national defense, which has two noncontiguous geographic locations in northern California. The Livermore Site is approximately one square mile and is located 40 miles east of San Francisco, near the City of Livermore. Site 300 is comprised of about 11 square miles and is located 15 miles southeast of the Livermore Site. Both the Livermore Site and Site 300 are on the Environmental Protection Agency's National Priorities List. Waste management activities are directed at compliant storage, treatment, and off-site shipment for disposal of both legacy and currently generated hazardous and radioactive waste. Completion of the Decontamination and Waste Treatment Facility construction in FY 2001 will provide new, centralized and integrated facilities for the treatment of all Lawrence Livermore National Laboratory waste.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

The Lawrence Livermore National Laboratory Livermore Site and Site 300 are managed through a performance based management and operating contract with the University of California to assure the most cost-effective services to the government.

OK-027 / Lawrence Livermore National Laboratory

Decontamination and Waste Treatment Facility 1,977 762 0

Construction of the Decontamination and Waste Treatment Facility at the Lawrence Livermore National Laboratory will provide new, centralized and integrated facilities for the hazardous waste management operations that will meet the requirement for a Low Hazard (chemical) Category 3 (nuclear) Facility.

Complete transition activities during FY 2003.

Continue the closure of the old Hazardous Waste Management facilities. (This activity is scheduled to be completed in FY 2003, but may slip due to the current schedule delay caused by the increase in Operational Basis Documentation requirements).

All work on this project is being done with carry-over funds.

Total, Oakland 1,977 762 0

Explanation of Funding Changes

FY 2003 vs. FY 2002 (\$000)

OK-027 / Lawrence Livermore National Laboratory Decontamination and Waste Treatment Facility

The line-item construction funding ended in FY 2002, due to the project being completed, no line-item funds are requested in FY 2003. -762

Total, Oakland -762

Hanford Site - Richland Operations Office

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Site/Project Completion account, carried out by the Hanford Site, Richland Operations Office, is the treatment, storage, and disposal of the legacy wastes and materials, and the decontamination and decommissioning of the facilities associated with the production of nuclear materials during the Cold War. This program will carry out its mission in a manner which provides for the health and safety of its workers and the general public, is cost-effective, and is protective of the environment.

The Department of Energy, Richland Operations Office has formulated an expansive outcome based vision of the Hanford's Site's future that embraces priorities of regulators, stakeholders, and area Tribal Nations, while recognizing the need to make visible progress sooner, rather than later. The three elements of that vision are: 1) to restore the Columbia River corridor; 2) complete the transition of the 200 Area on the Central Plateau to long-term waste management; and 3) prepare the remainder of the site to contribute to the future welfare and well-being of its neighboring communities.

Successful cleanup of the River Corridor will allow more than 500 square kilometers (200 square miles) of Hanford land to be made available for other uses; protect cultural resources; and shrink the footprint for active Hanford cleanup operations to approximately 200 square kilometers (75 square miles).

The Department is also transitioning the Central Plateau from primarily inactive storage to active waste treatment, storage, and disposal operations. New, state-of-the-art, environmentally compliant facilities will be used to support completion of the Hanford cleanup, as well as foster the DOE Office of River Protection tank waste mission. Some of these Central Plateau facilities, including the Canister Storage Building and Waste Receiving and Processing Facility, have already begun operation.

High priority activities under the contract for the Central Plateau and the Spent Nuclear Fuel project include:

- # Attempt to complete the Spent Nuclear Fuel Project by 2006, which is the Defense Nuclear Facilities Safety Board/Tri-Party Agreement milestone date;
- # Attempt to complete the plutonium stabilization by FY 2004 (a Defense Nuclear Facilities Safety Board commitment), and accelerate deactivation of the Plutonium Finishing Plant;
- # Continue mixed low-level waste treatment, retrieval of buried transuranic wastes, and preparation for shipment of transuranic waste to the Waste Isolation Pilot Plant in New Mexico for disposal; and
- # Optimize landlord and site services to support cleanup mission.

Program Goal

The program goal is to protect the public and the environment from radioactive and hazardous contamination by addressing the risks associated with five Richland strategic mission outcomes: 1) moving stored spent nuclear fuel away from the Columbia River; 2) stabilizing plutonium and other nuclear material inventories in the 200 Area, followed by; 3) the deactivation of the associated nuclear facilities that store this material; 4) management of large volumes of wastes generated as a result of site cleanup; and 5) management of the site infrastructure for the duration of the cleanup, which will go on for many years.

Under the Spent Nuclear Fuel Project, the fuel in K-Basins, adjacent to the Columbia River, is being removed from wet storage to dry storage, and is being relocated to higher ground in the central plateau region, known as the 200-Area. The entire inventory of 2,100 metric tons of degrading spent nuclear fuel will be removed from the K-Reactor storage basins and stored in a dry storage configuration in the Canister Storage Building, and all sludge and water will be removed. Schedules and milestones related to stabilizing the spent nuclear fuel represent commitments in the Hanford Federal Facility Agreement and Consent Order, commonly referred to as the “Tri-Party Agreement” and the Defense Nuclear Facilities Safety Board Recommendation 94-1/2000-1 Implementation Plan. Deactivation of the K-East and K-West fuel storage basins would occur after fuel removal. The spent nuclear fuel is intended to remain in dry storage awaiting final disposition, which is currently thought to be the permanent geologic repository located offsite.

The goal of the second strategic mission (listed above) is to treat and achieve a safe interim storage configuration for the entire inventory of about four metric tons of plutonium at the Plutonium Finishing Plant. Schedules and milestones related to stabilizing plutonium bearing materials at the Plutonium Finishing Plant are commitments in the Defense Nuclear Facilities Safety Board Recommendation 94-1/2000-1 Implementation Plan. The goal of removing the stabilized material to an off-site location as soon as possible is being pursued in cooperation with the Department’s Office of Fissile Materials Disposition. In conjunction with the stabilization activities at the Plutonium Finishing Plant, deactivation of the facility will occur in phases as sections of the plant are no longer needed for stabilization.

Deactivation of other former defense nuclear facilities in the 200 Area will also be accomplished. Facility deactivation provides risk reduction benefits, outyear cost avoidances, and contributes toward transitioning the Hanford Central Plateau. Significant deactivation projects already completed include the Plutonium Uranium Extraction facility, which reduced the annual surveillance and maintenance costs from about \$34,000,000 to less than \$1,000,000 a year; the B-Plant, which reduced the annual surveillance and maintenance costs from about \$19,000,000 to less than \$1,000,000 per year; and the N-Reactor, whose annual surveillance and maintenance costs dropped from about \$16,000,000 to less than \$300,000 per year. Accelerated deactivation of facilities in the 300 Area, such as Buildings 324 and 327, will provide significant out year savings in surveillance and maintenance costs, as well as reduce environmental risks near the Richland city limits and the Columbia River. In addition to deactivation of these surplus facilities, work efforts will include initiatives to convert unneeded site assets to supporting cleanup or be redeployed to the private sector to defray cleanup costs. Due to its significant experience in nuclear facility deactivation, the Hanford cleanup program provides lessons-learned and support to cleanup of other on-site facilities as well as the complex wide environmental management program.

Hanford will continue treatment and disposal of wastes consistent with national policies for management of transuranic, low-level, mixed low-level, and hazardous wastes. Hanford will continue to receive on-site and off-site wastes for disposal in the 200 Area. Retrieved and newly generated transuranic waste will be processed and prepared for shipment to the Waste Isolation Pilot Plant in New Mexico for disposal.

The goal of the landlord and site services program is to provide the proper level of site-wide activities and readiness needed to support environmental cleanup and long-term needs. To reduce overhead costs, support personnel and operations will be consolidated in order to eliminate unnecessary off-site office leases and low occupancy on-site facilities. Excess property will be cleaned up for reuse or disposed of to further reduce costs and schedules. The long-term objective is to normalize custodial responsibilities outside of the central plateau (200 Area) and implement efficient, low-cost support services within the central plateau. Long-term activities will include the disposition of more than 1,100 facilities that are assigned to the landlord and environmental restoration projects and expected to become vacant during clean up. The surplus facilities and the associated equipment will either be cleaned up for reuse, demolished, or disposed of by other means.

Program Objectives

In FY 2003, the Spent Nuclear Fuel project will initiate removal and drying operations of the corroded fuel currently stored at the K-East Basin and continue fuel removal in K-West Basin. The Canister Storage Building, located in the Central 200 Area Plateau, will continue operations to receive and place the stabilized spent nuclear fuel in dry storage.

At the Plutonium Finishing Plant, significant progress toward stabilization of plutonium bearing materials will continue in FY 2003. Specifically, stabilization and packaging of plutonium oxides and stabilization of residues will continue. While these treatment activities proceed, the safe and secure storage of special nuclear material in the Plutonium Finishing Plant is a primary objective. It will be achieved by performing surveillance and maintenance necessary to comply with the facility safety and safeguards requirements. Safeguard needs include an obligation to comply with the International Atomic Energy Agency non-proliferation inspections.

Deactivation activities in FY 2003 will include limited 324 Building closure activities. Until deactivation is achieved, surplus facilities will be maintained in a safe and secure condition through surveillance and maintenance necessary to comply with safety and safeguards requirements. The storage of 825 metric tons of uncontaminated uranium fuel will continue.

Hanford will continue treating mixed low-level wastes in FY 2003. Hanford will continue the disposal of low-level and mixed low-level wastes, including low-level waste received from off-site generators.

Significant Accomplishments and Program Shifts

- # Remove pressurized-water reactor spent fuel to make T-Plant canyon ready for receiving K-Basin sludge (FY 2002/RL-CP02).
- # Continued progress on the Defense Nuclear Facilities Safety Board 94-1/200-1 Plutonium Stabilization activities with continuation of solution stabilization, Pu residue packaging and thermal stabilization and packaging of oxides in 234-5Z and 2736-Z/ZB facilities. Processed a \$5,000,000 internal reprogramming for the Plutonium Stabilization and Handling Facility (line-item 98-D-453) project resulting in completion of the installation of plutonium packaging and stabilization equipment in the 2736-Z/ZB facilities; and completed stabilization of metals and alloys (FY 2001/RL-CP03).
- # Complete stabilization of plutonium bearing solutions (FY 2002/RL-CP03).
- # 300 Area Accelerated Closure Subproject shipped 235 metric tons of low enriched uranium billets to DOE Portsmouth, sent 135 metric tons of contaminated fuel to the Central Plateau, and demolished and disposed of two water towers and the 303K Building (FY 2001/RL-RC06).
- # 324 Facility Shutdown Subproject completed 15 percent of the remaining lifecycle work scope including: implemented a major Safety Analysis Review update which facilitated less restrictive building operations (e.g. building access) and removal of the criticality alarm system; completed Tri-Party Agreement Milestone M-89-02 which involved significant waste packaging and removal; and removed sufficient Special Case Waste to meet Tri-Party Agreement Milestone M-92-15 three years early (FY 2001/RL-RC06).
- # 327 Shutdown Subproject completed inspection of the Burst Test Pit and disposed of water removed from the pit; consolidated all legacy waste buckets in A-Cell; and identified and resolved major issues with Americium Curium Source (FY 2001/RL-RC06).
- # 300 Area Accelerated Closure Subproject will complete the demolition and disposal of the 377 Building and complete removal of the 303K pad below grade structure (FY 2002/RL-RC06).
- # 324 Facility Shutdown Subproject will complete 26.5 percent of the remaining baseline work; will complete all activities leading to successful commencement of Spent Nuclear Fuel movement by July 17, 2002, and complete two Spent Nuclear Fuel shipments to the Canister Storage Building Interim Storage Pad by September 30, 2002; will complete the Radiochemical Engineering Cell complex pipe trench cleanout and will initiate cleanout activities in the Shielded Material Facility (FY 2002/RL-RC06).
- # 327 Shutdown Subproject will complete packaging and shipment of the Curium/Americium source to Central Waste Complex and complete cleanout of the Dry Storage Carousel package in A-Cell, shipping it to Central Waste Complex (FY 2002/RL-RC06).
- # Completed first shipment of spent nuclear fuel to the central plateau in December 2000, and continued the K-West Basin spent nuclear fuel removal (FY 2001/RL-RS03).
- # Complete K-East Basin modifications in preparation for fuel removal in FY 2003. Complete initial receipt of Light Water Reactor fuel from 324 Building and the Fast Flux Test Facility at the 200 area interim storage area (FY 2002/RL-RS03).

- # Continued to restore the water distribution system; completed emergency services renovation; completed the Plutonium Finishing Plant water system back flow prevention; began integrated management of vegetation and animal control and disposed of a well car (FY 2001/RL-SS02).
- # Replaced 2.5 miles of 24-inch export water line up to the 200 West Water Reservoir; installed back flow preventers and a potable water bypass line around the Plutonium Finishing Plant directly to the Waste Receiving and Processing facility; renovated the 200 Area Fire House; disposed of four bunker oil tanks at the 384 Powerhouse. Initiated site-wide biological controls to captivate contamination. Continued to keep low and high level analytical laboratories available to support site workload (FY 2001/RL-SS02).
- # Replaced a temporary water line with a permanent 6-inch C600 plastic line; renovated the 200 Area Fire Station vehicle, equipment and storage facilities; initiate replacement of VHF/UHF narrowband towers and repeaters with wideband systems as mandated by the National Telecommunications Information Administration; maintain or upgrade site roads to support waste treatment plant construction, inter-site low-level waste shipments; and River Corridor waste site remediation shipments; upgrade cyber security (FY 2002/RL-SS02).

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
RL-CP02 / 200 Area Materials and Waste Management	94,033	73,350	74,280
RL-CP03 / Plutonium Finishing Plant	108,750	75,005	68,071
RL-RC06 / 300 Area Facility Transition	42,144	35,835	28,698
RL-RS03 / Spent Nuclear Fuel	196,709	152,842	90,141
RL-SS02 / Landlord and Site Services	46,504	100,343	96,229
Total, Richland Operations Office	488,140	437,375	357,419

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	\$ Change	% Change
Hanford	488,140	437,375	357,419	-79,956	-18.3%
Total, Richland Operations Office	488,140	437,375	357,419	-79,956	-18.3%

Metrics Summary

	FY 2001	FY 2002	FY 2003
Facilities			
Cleanup	2	4	0
Deactivation	2	4	5
Transuranic Waste			
Shipped to WIPP for Disposal (m ³)	62	0	0
Mixed Low-Level Waste			
Treatment (m ³)	446	0	731
Disposal (m ³)	160	268	786
Low-Level Waste			
Disposal (m ³)	7,558	4,626	3,956
Nuclear Materials			
Stabilized - Plutonium Residue (kg Bulk)	420	898	1,387
Stabilized - Plutonium Metals/Oxides (containers)	394	0	0
Spent Nuclear Fuel			
Moved to Dry Storage (MTHM)	127	597	582

Site Description

Richland Operations Office--Hanford Site

The United States Department of Energy's Richland Operations Office manages the Department's Hanford Site, except for the High-Level Waste Tank Farms in Southeastern Washington State. The 1,465 square kilometer (560 square mile) site is bounded on the north by over 80 kilometers (50 miles) of the Columbia River, and to the south by Rattlesnake Ridge. The flat plateau containing the Hanford site is the only section of the mid-Columbia River that is not confined by gorges, and is known as the Hanford Reach. The Department leases some of Hanford's land to the State of Washington, which in turn leases it to US Ecology and Energy Northwest (formerly Washington Public Power Supply System).

Hanford was established in secrecy during World War II to produce plutonium for the nation's nuclear weapons. Peak production years were reached in the 1960's when nine production reactors were in operation along the river. The last to be decommissioned was N-Reactor and its fuel in the K-Basins is now being relocated to higher ground in the central plateau, known as the 200 Area. The Plutonium Finishing Plant is one of the last production facilities that remains operational – but only to process remaining plutonium materials. Other areas of the site include the Fast Flux Test Facility (400 Area) (currently budgeted and managed by the Office of Nuclear Energy); research and development activities by Pacific Northwest National Laboratories in the 300 Area; and support facilities in the 1100 Area, most of which have been turned over to the local community.

The Hanford mission is now site cleanup and environmental restoration to protect the Columbia River. The cleanup is covered by commitments in a 1989 consent agreement among the Department of Energy, the Environmental Protection Agency, and the Washington State Department of Ecology. This Tri-Party Agreement contains enforceable milestones to bring Hanford into compliance with the Comprehensive Environmental Response, Compensation, and Liability Act, and the Resource Conservation and Recovery Act. Most of the Hanford budget is directed at compliance with these milestones. Additionally, the Defense Nuclear Facilities Safety Board takes great interest in safety at Hanford and has issued recommendations, which are the basis for the Defense Nuclear Facilities Safety Board commitments that are also high priority items within this budget.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

To support the site's missions, EM negotiated an extension of the current site operations contract through FY 2006 for transition work in the Central Plateau and the Spent Nuclear Fuel Project. The contract extension is performance based with 80 percent of the fee applied to the completion of specific cleanup activities and 20 percent of the fee applied to a comprehensive performance incentive. During the six-year performance period, the contractor is paid more fee for meeting multi-year performance objectives. Incremental progress and provisional fee payments will be provided to the contractor toward final completion of contract goals. A significant portion of the available fee is for stretch performance incentives, which requires the contractor to accelerate work by achieving cost and schedule efficiencies.

RL-CP02 / 200 Area Materials and Waste Management 94,033 73,350 74,280

This project provides for interim compliant storage of solid low-level, mixed low-level, and transuranic wastes, disposal of low-level and mixed low-level wastes as well as treatment of mixed low-level waste. Transuranic wastes are processed and shipped to the Waste Isolation Pilot Plant. Integrated liquid effluent management is provided to support cleanup of the Hanford Site. Liquid effluents from other projects are received, stored, treated, and disposed in compliance with discharge permits. The 242-A Evaporator provides waste volume reduction support to the Tank Farms. The Waste Encapsulation and Storage Facility provides safe storage for approximately 134 million curies of highly radioactive cesium-137 and strontium-90 packaged in capsules and stored in underwater pool cells.

- # Continue minimum thermal and non-thermal treatment of mixed low-level waste.
- # Complete removal of pressurized-water reactor spent fuel from T-Plant and continue to support the Spent Nuclear Fuel Project.
- # Provide interim compliant storage of solid mixed low-level and transuranic wastes, and disposal of low-level and mixed low-level wastes.
- # Transfer nonradioactive hazardous waste offsite for disposal.
- # Conduct high-level waste liquid treatment at the 242-A Evaporator.
- # Provide the Resource Conservation and Recovery Act treatment and disposal of approximately 1 million gallons of radioactive and dangerous liquid effluents.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

- # Continue to provided safe and compliant storage for encapsulated cesium-137 and strontium-90.
- # Initiate a new mixed low-level waste trench permit.
- # Maintain Waste Isolation Pilot Plant certification.
- # Operation of the Waste Receiving and Processing Facility to maintain compliance with the Waste Isolation Pilot Plant certification process and prepare transuranic waste for shipment to the Waste Isolation Pilot Plant for disposal.

Metrics			
Facilities			
Deactivation	0	0	0
Mixed Low-Level Waste			
Treatment (m ³)	446	0	731
Disposal (m ³)	160	268	786
Low-Level Waste			
Disposal (m ³)	7,558	4,626	3,956
Transuranic Waste			
Shipped to the Waste Isolation Pilot Plant for Disposal (m ³)	62	0	0
Key Milestones			
#	M-91-20 - T-Plant ready to receive canister of K-Basin floor pit sludge (December 2002).		
#	M-91-12A - Initiate thermal treatment of contact-handled, low-level mixed waste (December 2000).		

RL-CP03 / Plutonium Finishing Plant 108,750 75,005 68,071

The Plutonium Finishing Plant houses a large inventory of radioactive and chemical materials left from defense production at the Plutonium Finishing Plant and other DOE facilities during the Cold War. This inventory poses a serious challenge for safe facility management and requires costly monitoring and maintenance. The Plutonium Finishing Plant provides the safe and secure storage of special nuclear materials and provides basic infrastructure for nuclear material stabilization and facility deactivation. The Plutonium Finishing Plant project also implements the Defense Nuclear Facilities Safety Board Recommendation 94-1/2000-1 by stabilizing and repackaging remaining plutonium-bearing materials. The end state objective includes dismantlement of the Plutonium Finishing Plant complex systems and structures, thus eliminating significant hazards to workers, public, environment, and minimizing long-term surveillance and maintenance risks and costs.

- # Continue annual stabilization of plutonium oxides and plutonium bearing residues.
- # Continue appropriate level of surveillance and maintenance activities to ensure safe operation of the Plutonium Finishing Plant, as well as providing surveillance and monitoring of the Plutonium Finishing Plant's special nuclear materials

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Continue to support the International Atomic Energy Agency non-proliferation activities for vault number 3.

Metrics			
Nuclear Materials			
Stabilized - Plutonium Residue (kg Bulk)	420	898	1,387
Stabilized - Plutonium Metal/Oxides (Containers)	394	0	0
Key Milestones			
# Complete brushing and repackaging of plutonium metal inventory (March 2001).			
# Complete repackaging and shipping Rocky Flats Ash to Central Waste Complex (March 2001).			
# Complete stabilization and packaging of plutonium solutions (July 2002).			

RL-RC06 / 300 Area Facility Transition 42,144 35,835 28,698

The 300 Area Facility Transition Project encompasses a major subset of the 300 Area Accelerated Cleanup Project, which provides for the earliest possible cleanup. The 300 Area Facility Transition includes: stabilization and removal of material at the 324 and 327 Laboratory Buildings; complete Resource Conservation and Recovery Act closure plans for designated facilities and systems; storage and disposition of spent nuclear material (Uranium Disposition Project); and shutdown and cleanup of remaining facilities for turnover to decontamination and decommissioning. The aim of these efforts is to transition the facilities to a low cost surveillance and maintenance state ready for eventual deactivation and decommissioning.

- # Continue surveillance and maintenance activities at 324 and 327 Buildings, as well as miscellaneous radiological facilities.
- # Continue limited 324 Building closure activities.
- # Continue to maintain facilities needed to store approximately 840 metric tons of uncontaminated uranium fuel pending the Hanford Solid Waste Environmental Impact Statement Record-of-Decision.
- # Continue the packaging and shipment to interim storage of the Spent Nuclear Fuel in the 324 Building.
- # Continue the decontamination of the 327 Building.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Metrics			
Facilities			
Cleanup	2	0	0
Deactivation	2	0	0
Key Milestones			
#	Submit development of tritium treatment technology to the Environmental Protection Agency and Washington Department of Ecology (July 2001).		
#	Complete construction of Liquid Waste Handling System at the 324 Building (September 2003).		
#	Complete shipment of waste from B-Cell (M-89-02) cleanout (July 2001).		

RL-RS03 / Spent Nuclear Fuel 196,709 152,842 90,141

This project will move approximately 2,100 metric tons of degrading spent nuclear fuel from wet storage in the K-East and K-West Basins near the Columbia River to safe, dry interim storage on the 200 Area Central Plateau. Continued use of current K-Basin facilities far past their design lives threatens Hanford with a loss of radioactive storage basin water into the surrounding soil, and from there potentially into the Columbia River. This project includes: removing and repackaging of spent nuclear fuel; fuel drying, transport and staging; removal of sludge and debris from the K-Basins for appropriate disposition; treating and conditioning basin water; and consolidating spent nuclear fuel in the Central Hanford 200 Area pending final disposition.

- # Continue K-West Basin spent nuclear fuel removal, drying and transport to dry storage.
- # Initiate K-East Basin fuel and sludge removal.

Metrics			
Spent Nuclear Fuel			
Moved to Dry Storage (MTHM)	127	597	582
Key Milestones			
#	Initiate removal of K-West Basin Spent Nuclear Fuel (December 2000).		
#	Start K-West canister cleaning operations (May 2001).		
#	M34-12-T01 Complete construction of K-East Basin Integrated Water Treatment System (September 2002).		
#	M34-18A Complete removal of 190 Multi-Canister Overpacks of spent nuclear fuel from K-West Basin (December 2002).		
#	M-34-27-T01 Complete removal of 244 Multi-Canister Overpacks (May 2003).		
#	M-34-17 Initiate K-East Basin fuel removal (November 2002).		
#	M-34-08 Initiate K-East Basin sludge removal (December 2002).		

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
RL-SS02 / Landlord and Site Services	46,504	100,343	96,229

The Landlord and Site Services Project provides Landlord Services, Analytical Services, and Infrastructure Upgrades in support of the Hanford cleanup mission. Beginning in FY 2002 Infrastructure Services, Analytical Services, and much of the Project Management work scope were integrated with the existing Landlord Program to form the Landlord and Site Services Project. The Project provides required crosscutting services including Landlord Services, Analytical Services, Infrastructure Upgrades, and Project Management.

- # Continue services at sufficient levels for site safety and operational readiness.
- # Design replacement export pumps for the water system.
- # Continue replace portions of the site's two-way radio system (base and mobile radio units) as mandated by the National Telecommunications and Information Administration.
- # Recondition two Fire Engines, replace a pumper truck and rescue vehicle worn out from Hanford's fire of June 2000.
- # Maintain roads in core areas of the site for operational reliability.
- # Maintain infrastructure and general purpose facilities.
- # Replace capital equipment.

Metrics			
Facilities			
Cleanup	0	4	0
Deactivation During Period	0	4	5

Total, Hanford Site, Richland Operations Office	488,140	437,375	357,419
--	----------------	----------------	----------------

Explanation of Funding Changes

FY 2003 vs. FY 2002 (\$000)

RL-CP02 / 200 Area Materials and Waste Management

- # Increase resumes mixed low-level waste treatment activities and provides needed upgrades to facilities. 930

RL-CP03 / Plutonium Finishing Plant

- # In FY 2003, the administration proposes to reduce this project to permit Environmental Management to accelerate risk reduction elsewhere. -6,934

FY 2003 vs. FY 2002 (\$000)

RL-RC06 / 300 Area Facility Transition

In FY 2003, the administration proposes to reduce this project to permit Environmental Management to accelerate risk reduction elsewhere -7,137

RL-RS03 / Spent Nuclear Fuel

In FY 2003, the project baseline plans for a reduction due to progress being made on the removal of spent nuclear fuel from K-West basin and completion of construction activities. Further reductions are due to the administration's proposal to reduce this project to permit Environmental Management to accelerate risk reduction elsewhere . -62,701

RL-SS02 / Landlord and Site Services

In FY 2003, the administration proposes to reduce this project to permit Environmental Management to accelerate risk reduction elsewhere. -4,114

Total Funding Change, Richland -79,956

Hanford Site - River Protection

Mission Supporting Goals and Objectives

Program Mission

The mission of the Defense Environmental Restoration and Waste Management, Site/Project Completion account, carried out by the Hanford Site, Office of River Protection, is to safely operate the underground high-level waste storage tanks and to build and operate the tank waste complex to complete the cleanup of Hanford's highly radioactive tank waste.

Program Goal

The Office of River Protection is responsible for safe storage, retrieval, treatment, and disposal of 53 million gallons of highly toxic, high-level radioactive waste stored in 177 underground storage tanks located within 7 miles of the Columbia River. The waste will be retrieved from the storage tanks, separated into low-activity and high-activity fractions, and then vitrified. Low activity waste will be disposed in the Hanford central plateau, and immobilized high-level waste will be stored at Hanford pending ultimate disposal in the nation's geologic repository.

Program Objectives

The most important near-term objective is to complete design and initiate construction of the Immobilized High-Level Waste Interim Storage Facility.

Significant Accomplishments and Program Shifts

- # Initiate definitive design, safety documentation, and project integration for the Immobilized High-Level Waste Interim Storage Facility (FY 2001).
- # Continue design, safety documentation, and project integration for the Immobilized High-Level Waste Interim Storage Facility (FY 2002).

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
RP-PED / Preliminary Project Engineering and Design	1,297	2,000	5,125
Total, River Protection	1,297	2,000	5,125

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	\$ Change	% Change
Office of River Protection	1,297	2,000	5,125	3,125	156.3%
Total, River Protection	1,297	2,000	5,125	3,125	156.3%

Site Description

Office of River Protection

In order to more effectively manage the River Protection Project and in response to Section 3139 of the *Strom Thurmond National Defense Authorization Act for Fiscal Year 1999*, the Secretary of Energy established the Office of River Protection at the Hanford Site in the State of Washington. The Office of River Protection is responsible for the storage, treatment and immobilization of tank waste and the operation, maintenance, engineering, and construction activities in the 200 Area tank farms. The 200 Area tank farms are located in the central plateau of the Hanford Site and are 7 miles south and 10 miles west of the Columbia River, the largest river in the Pacific Northwest. The Hanford Site is mostly flat and semi-arid with a relatively mild climate. The 200 Area had been the site of major nuclear chemical processing plants, which were shut down by the early 1990's. The 200 Area is now the focus of the Office of River Protection and includes 177 underground storage tanks (149 single-shell and 28 double-shell) containing approximately 190 million curies in more than 53 million gallons of radioactive waste from past processing operations. The Office of River Protection will manage the complex River Protection Project activities to ensure successful immobilization and disposal of high-level wastes and the ultimate protection of the Columbia River resources.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

The site is managed through an incentivized management and operations contractor, with fixed-price subcontracts, to assure the most cost-effective services to the Government. The scope planned for FY 2003 has been reviewed and is appropriate to meet the central goals of the program. The integrated baseline and supporting documentation have had an independent review of the scope by an internal Hanford and Headquarters team. The funds requested for FY 2003 are appropriate to perform the central activities based on estimated project progress and accumulated cost management success.

RP-PED / Preliminary Project Engineering and Design 1,297 2,000 5,125

The Immobilized High-Level Waste Interim Storage Facility will install systems and components to enable receipt of immobilized high-level waste, produced by the Waste Treatment and Immobilization Plant, in the Canister Storage Building at Hanford. The project also includes a system for transporting immobilized high-level waste canisters from the treatment facility to the Canister Storage Building.

Initiate detailed design, update the Resource Conservation and Recovery Act Part B, Revision 0, Permit Application and project integration.

Continue detailed design and complete the Resource Conservation and Recovery Act Part B permit application for the Immobilized High Level Waste Interim Storage Facility Project (03-D-403) . Funding is necessary to meet Tri-Party Agreement milestones for the storage facility.

Total, River Protection 1,297 2,000 5,125

Explanation of Funding Changes

FY 2003 vs. FY 2002 (\$000)

RP-PED / Preliminary Project Engineering and Design

Increase reflects ramp up of design activities for the Immobilized High-Level Waste Interim Storage Facility. 3,125

Total, River Protection 3,125

Savannah River

Mission Supporting Goals and Objectives

Program Mission

The Defense Environmental Restoration and Waste Management, Site/Project Completion account, carried out by the Savannah River Operations Office cleanup program has as its mission the treatment and disposal of wastes and the stabilization and preparation for disposal of some legacy materials and wastes that resulted from the production of nuclear materials during the Cold War. This legacy includes contaminated facilities and land areas, many of which still contain nuclear materials and wastes. The Savannah River Site, located near Aiken, South Carolina, covers over 300 square miles and includes five nuclear reactors (shut down), two chemical separations facilities, deactivated fuel and target fabrication facilities, tritium processing facilities, a heavy water facility, two high-level waste tank farms, low-level waste storage and disposal facilities, a high-level waste treatment facility, the Savannah River Technology Center, and numerous administrative and technical support facilities. These facilities have varying degrees of environmental contamination (soil and groundwater); the majority of which will require some remedial action to address environmental and health risks.

The Savannah River cleanup program is composed of the following major elements: spent nuclear fuel management, nuclear materials stabilization and storage, waste management (high-level, transuranic, low-level, hazardous, mixed low-level, and other), deactivation, remediation, and supporting landlord requirements. This account funds 12 projects whose life-cycle will be essentially complete by FY 2006.

Program Goal

The Savannah River Site is committed to managing spent nuclear fuel, stabilizing and storing nuclear materials, and managing all types of wastes using currently available (or near-term) technology and facilities. Eventually, the nuclear materials will be dispositioned, and the remaining spent nuclear fuel and wastes will be sent to geologic repositories. To the extent possible (to be determined through technical analyses, National Environmental Policy Act review, and the regulatory process), Savannah River Site is assisting other sites in eliminating their Cold War “legacy” materials. Savannah River Site personnel will continue planned stabilization of certain spent nuclear fuel and other nuclear materials (currently scheduled to be received or already received at Savannah River) in the F- and H-Area facilities. Achievement of this effort depends on attainment of productivity enhancements through 2006.

Program Objectives

Although DOE has ceased production of nuclear materials for defense purposes at the Savannah River Site and all Savannah River Site reactors are shut down, there remains a significant amount of legacy nuclear material in the “pipeline”, both at Savannah River and across the DOE complex. The program objective is to stabilize these legacy nuclear materials, in various enrichments, concentrations, compounds, forms, and storage configurations, through further treatment/handling in order to place them in a form which can be safely stored until disposition or disposal. Stabilization means that changes must be made (conversion from a liquid to a solid, removal of reactive and other constituents, repackaging, etc.) in the form and/or storage conditions for nuclear materials such that they can be stored with minimal risk to workers, the public, and/or the environment until disposition. As long as significant quantities of nuclear materials in liquid or unstable forms continue to reside in the processing facilities, most attributes of an operating facility must be maintained including: security, radiation protection, material control and accountability, trained and certified operator and maintenance personnel, essential safety system operation, emergency response capability, sampling and monitoring, configuration management, fire protection, and maintenance of the safety authorization basis, etc. Thus, the cost of continuing to store these materials in their current condition is very high and approaches the total cost of operating the facilities for the “cleanup” mission.

In July 1997, the Secretary of Energy approved the operation of both the F-Canyon and H-Canyon for the stabilization of "at risk" nuclear materials. The dual canyon strategy uses existing processes and facilities specifically designed for these materials, thus optimizing the site's capability for the completion of the materials stabilization mission.

The Savannah River Site's canyon facilities will continue to operate to stabilize nuclear materials covered by Defense Nuclear Facilities Safety Board Recommendations 94-1 and 2000-1. H-Canyon and HB-Line will be operated to continue dissolving plutonium residues and certain spent nuclear fuel. HB-Line will also begin converting existing plutonium solution to a solid oxide in FY 2002. The stabilization of Rocky Flats Environmental Technology Site plutonium scrub alloy will be completed in FY 2002 using F-Canyon and FB-Line. Receipt and stabilization of plutonium from Rocky Flats supports DOE's goal for the accelerated closure of the Rocky Flats Environmental Technology Site.

Design for the Americium/Curium vitrification project was cancelled and an alternative to transfer the material to the high-level waste system is being implemented. The high-level waste alternative will be evaluated to determine a cost and schedule baseline.

The two chemical processing canyons at the Savannah River Site, and the related support facilities, have the capability to stabilize the Savannah River Site legacy materials (as well as some of the legacy materials from other sites in the DOE complex) for interim storage and eventual disposition. As of the end of FY 2000, these facilities had stabilized 3,500 gallons of Plutonium-242 solutions, 80,000 gallons of Plutonium-239 solutions, 16,000 corroding targets from the Savannah River Site reactor basins, 230 canisters of failed or declad spent fuel, and completed dissolution of 580 containers of plutonium residues and approximately 715 Mk-16/22 spent fuel assemblies. Remaining materials to be stabilized in the canyons include 9,000 gallons of Plutonium-239 bearing solutions, 60,000 gallons of enriched uranium bearing solutions, 3,800 gallons of americium/curium solution, 1,600 gallons of neptunium solutions, 1,170 assemblies of Savannah River fuels, 850 items of other aluminum-clad fuel and targets, 900 containers of plutonium residues, 900 containers of plutonium and uranium vault materials, and 461 containers of plutonium scrub alloy from Rocky Flats. The mission includes stabilizing about 19 metric tons of heavy metal of additional spent nuclear fuel to address potential health and safety vulnerabilities. Nuclear materials stabilized in the canyons will be stored at Savannah River until dispositioned (SR-NM01, SR-NM02, SR-NM03, SR-NM04, SR-NM09 and SR-NM10).

The Landlord program includes support for an operating expense funded project, Laboratory Facilities Roof and Shielded Area Restoration 773-A and 772-F (99-EXP) (SR-HL10, SR-HL11, SR-IN13).

Significant Accomplishments and Program Shifts

- # Completed stabilization of the F-Area dissolved sweepings, plutonium/depleted uranium and Experimental Breeder Reactor II to metal (FY 2001).
- # Start up and turnover operation of the new F- and H-Canyon Diesel Generator Buildings (FY 2001).
- # Temporarily suspended the Americium/Curium vitrification project and evaluate high-level waste alternative (FY 2001).
- # Completed work on subprojects for B-Area and HB-Line chillers and turnover for startup testing (FY 2001).
- # Completed construction phase and startup testing of the Regulatory Monitoring and Bioassay Laboratory (FY 2001/SR-IN10).
- # Completed roof replacement of Building 773-A (FY2001).
- # Began receipt of Rocky Flats surplus non-pit plutonium metal and oxides for interim storage in the K-Area Nuclear Material Storage Facility (FY 2001).
- # Complete construction activities associated with this scope of work, turnover all equipment to operations and financially closeout the Chlorofluorocarbon Heating, Ventilation and Air Conditioning Chiller Retrofit Project (FY 2002/SR-IN05).
- # Start construction activities to decontaminate Building 772-F (FY 2002/SR-IN13).
- # Continue secure storage of the Savannah River Site and Rocky Flats plutonium residues and stabilized plutonium; continue operation of bagless transfer and package additional metal within the inner container; continue to characterize and repackage plutonium, sand, slag and crucible, and

residues for dissolving; continue direct casting of Rocky Flats classified plutonium metal and conversion of plutonium solutions to metal (FY 2002/SR-NM01).

- # Continue dissolution of Savannah River sand, slag and crucible plutonium residues; continue monitored storage of depleted uranium oxide in drums and solution in tanks; continue to receive and process lab high activity waste solutions (FY 2002/SR-NM01).
- # Began (FY 2001) and complete stabilization of Rocky Flats scrub-alloy to plutonium metal (FY 2001 and FY 2002/SR-NM01).
- # Complete currently planned F-Canyon dissolution campaigns and initiate orderly, safe standdown of PUREX operation (FY 2002/SR-NM01).
- # Continue dissolution and processing of Mk 16/22s spent fuel (FY 2002/SR-NM02)
- # Completed transfer of highly enriched uranium solution to double-walled tank (FY 2001/SR-NM02).
- # Complete refreshing and consolidating highly enriched uranium solution; continue monitored storage of depleted and enriched uranium solution (FY2002/SR-NM02)
- # Continue to dissolve plutonium residues in HB-Line, Phase I. Startup HB-Line, Phase II and begin converting H-Area Pu-239 solutions to oxide (FY 2002/SR-NM02).
- # Complete reconfiguration of emergency electrical distribution systems in F&H Canyons and upgrades to aged exhaust fans and related ventilation equipment (FY 2002/SR-NM04).
- # Complete design of the Plutonium Packaging and Stabilization project; begin construction activities (FY 2002/SR-NM10).
- # Cancel Americium/Curium vitrification project and implement high-level waste alternative. Transfer Americium/Curium solution to the high-level waste system (FY 2002/SR-NM01).

Funding Schedule

(dollars in thousands)

	FY 2001	FY 2002	FY 2003
SR-HL10 / H-Tank Farm Storm Water System Upgrades	36	0	0
SR-HL11 / Tank Farm Support Services F-Area	8,505	6,224	4,525
SR-IN05 / Chlorofluorocarbon Heating, Ventilation and Air Conditioning Chiller Retrofit	13,437	5,445	0
SR-IN10 / Regulatory Monitoring and Bioassay Laboratory	4,033	100	0
SR-IN13 / Decontamination of Laboratory Facilities, 772-F and 773-A	1,616	0	0
SR-NM01 / F-Area Stabilization Project	208,453	176,374	172,256
SR-NM02 / H-Area Stabilization Project	164,255	170,313	156,008
SR-NM04 / Canyon Exhaust Line Item	10,389	4,904	2,867
SR-NM09 / 235-F Packaging and Stabilization	7,991	0	0
SR-NM10 / Plutonium Packaging and Stabilization	8,500	22,261	2,224
SR-PED / Preliminary Project Engineering and Design	15,466	0	0
Total, Savannah River	442,681	385,621	337,880

**Environmental Management/Defense Environmental
Restoration and Waste Management/Site/Project
Completion/Savannah River**

FY 2003 Congressional Budget

Funding by Site

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	\$ Change	% Change
Savannah River Site	442,681	385,621	337,880	-47,741	-12.4%
Total, Savannah River	442,681	385,621	337,880	-47,741	-12.4%

Metrics Summary

	FY 2001	FY 2002	FY 2003
Nuclear Materials			
Stabilized-Plutonium Residue (kg Bulk)	86	333	0
Stabilized-Plutonium Metal/Oxides (containers)	32	110	263

Site Description

Savannah River

The complex covers 198,344 acres, or 310 square miles encompassing parts of Aiken, Barnwell, and Allendale counties in South Carolina, bordering the Savannah River.

The site is owned by the U.S. Department of Energy and operated by an integrated team led by Westinghouse Savannah River Company. Under the contract extension that became effective October 1, 2000, the Westinghouse Savannah River Company is responsible for the site's nuclear facility operations; applied research; environment, safety, health, and quality assurance; and all of the site's administrative functions. The team also includes Bechtel Savannah River Incorporated, which is responsible for environmental restoration, project management, engineering and construction activities; Babcock and Wilcox Savannah River Company, which is responsible for facility decontamination and decommissioning; and British Nuclear Fuels Limited Savannah River Corporation, which is responsible for the site's solid waste program.

While the changing world has caused a downsizing of the site's original defense mission, the future of the Savannah River Site lies in several areas: reducing the nuclear danger, supporting United States non-proliferation objectives, transferring applied environmental technology to government and non-government entities; and cleaning up the site and managing the waste the Savannah River Site has produced.

The Savannah River Site is managed through an incentivized Management and Integration contract, with fixed-price subcontracts, to assure the most cost-effective services to the Government. The funds requested for FY 2003 are appropriate to perform the activities based on the use of the "Activity-Based Costing Methodology." All construction line-item projects were validated and many projects received an independent cost estimate review.

Detailed Program Justification

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

SR-HL10 / H-Tank Farm Storm Water System Upgrades 36 0 0

The scope of this project includes evaluation of the entire stormwater collection, retention, and outfall system related to the flooding condition surrounding Tanks 9-12H; awarding the fixed-price design contract; completing the final design work; awarding a fixed-price construction contract for diversion line replacements and the storm water pumping and monitoring system; and completing construction including installation of new manholes, storm water piping and diversion boxes, and modification to Diversion Box 907-1H and Retention Basin 281-8H.

Construction is complete.

SR-HL11 / Tank Farm Support Services F-Area 8,505 6,224 4,525

The scope of this project includes replacement in F-Area Tank Farm of all support service lines to Tanks 25-28, 33-34, and 44-47, as well as to the 242-16F evaporator. The existing underground service piping systems will be abandoned in place and not removed in order to minimize cost, radiological waste generation, and personal radiation exposure.

Provide necessary support functions such as steam, electric, health protection, and other related services to assure safe operations of the F Tank Farm.

SR-IN05 / Chlorofluorocarbon Heating, Ventilation and Air

Conditioning Chiller Retrofit 13,437 5,445 0

Project provides for replacement or retrofit of refrigeration chillers containing chlorofluorocarbons that are located in various facilities sitewide.

This project will be completed in FY 2002.

These funding levels include line-item construction funding of \$12,484,000 in FY 2001; \$4,244,000 in FY 2002; and \$0 in FY 2003.

SR-IN10 / Regulatory Monitoring and Bioassay Laboratory . . . 4,033 100 0

This project will design, build and equip a new Regulatory Monitoring and Bioassay Laboratory for the Environmental Monitoring and Health Physics Technology departments of the Environmental, Safety, Health and Quality Assurance Division at the Savannah River Site. The new facility will continue to provide full compliance with Occupational Safety and Health Administration, radiation protection requirements, industrial hygiene and environmental protection requirements as detailed in Federal and state regulations and DOE Orders.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

The Regulatory Monitoring and Bioassay Laboratory will house the equipment and personnel to support site requirements to sample, prepare and analyze environmental media (air, water, soil) for radiological, chemical and biological parameters; develop technologies to clean and monitor the environment; and determine, evaluate and document personnel exposure to radioactive materials. The new laboratory and support facilities will include laboratory modules, sample preparation areas, analytical instrument rooms, mechanical and electrical support services, storage space, and offices for technical and administrative personnel. The structural, mechanical, electrical and architectural design provisions will consider expansion capability for additional laboratory modules and associated support features.

This project was completed in FY 2001, with final closeout in FY 2003.

These funding levels include line-item construction funding of 3,940,000 in FY 2001; \$0 in FY 2002; and \$0 in FY 2003.

Key Milestones

Obtain startup approval for a new Regulatory Monitoring and Bioassay Facility (CD-4) (September 2001).

SR-IN13 / Decontamination of Laboratory Facilities 772-F and 773-A

1,616 0 0

The project will decontaminate areas of the service floor of 772-F and decontaminate and replace the roof of 773-A. Approximately 15,000 square feet of the area in Building 772-F will be decontaminated. The project will also replace parts of the 773-A roof equipment to preclude any additional contamination from occurring due to leaking exhaust components.

At Building 773-A, approximately 80,000 square feet of roofing area will be replaced. Leaks through the contaminated roofing are currently contaminating interior laboratory modules requiring significant expense to decontaminate work areas.

There are no planned activities for this project in FY 2003. The schedule for this project has been extended due to reprioritization of site activities.

SR-NM01 / F-Area Stabilization Project

208,453 176,374 172,256

This project involves the safe management of Savannah River Site and certain Rocky Flats nuclear materials and the conversion of “at risk” nuclear materials into stable forms suitable for interim to long-term storage using the F-Canyon, FB-Line, 235-F, and supporting facilities in response to the Defense Nuclear Facilities Safety Board Recommendations 94-1 and 2000-1.

Continue secure storage of the Savannah River Site and Rocky Flats stabilized plutonium and the Savannah River Site plutonium residues.

Continue operation of the Bagless Transfer System and packaging Rocky Flats classified plutonium metal within the inner container in accordance with DOE’s long-term plutonium storage standard (DOE-STD-3013-00).

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Continue receipt and processing lab high activity waste solutions.

Continue to characterize and repackage plutonium residues for dissolving or direct waste disposal.

Metrics			
Nuclear Materials			
Stabilized-Plutonium Residue (kg bulk)	86	333	0
Stabilized-Plutonium Metal/Oxides (containers)	32	110	263
Key Milestones			
# Review and approve the Americium/Curium rebaseline request submitted by Westinghouse Savannah River Company (September 2001).			
# Begin dissolution of the Rocky Flats Environmental Technology Site scrub alloy (March 2001).			
# Complete dissolution of the Rocky Flats Environmental Technology Site scrub alloy (September 2001).			
# Delivery of in-cell vitrification equipment (May 2002).			
# Canceled Americium/Curium vitrification project (September 2001).			

SR-NM02 / H-Area Stabilization Project 164,255 170,313 156,008

The project scope is to convert "at risk" legacy nuclear materials identified in the Defense Nuclear Facilities Safety Board Recommendations 94-1 and 2000-1 to stable forms suitable for interim or long-term storage or disposition.

Additional nuclear materials to be processed include those within the scope of the DOE/Tennessee Valley Authority interagency agreement for transfer of uranium to the Tennessee Valley Authority for use in fuel for its power reactors.

- # Continue secure and safe monitored storage of the Savannah River Site and the Rocky Flats Plutonium residues, stabilized plutonium, in-process, in-process neptunium, in-process Mk 16/22, and highly enriched uranium solution in tanks.
- # Spent nuclear fuel processing will be limited to two casks per year to maintain minimum personnel qualifications.
- # Continue H Canyon processing and HB-Line Phase II.
- # Support the Tennessee Valley Authority requirements and the Highly Enriched Uranium blend down program.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

Metrics		
Nuclear Materials *	* Metrics for PBSs SR-NM01 and SR-NM02 are combined. Separation of these metrics would create classified metrics.	
Stabilized-Plutonium Residue (kg Bulk)		
Stabilized-Uranium in Other Forms (kg Bulk)		
Stabilized-Plutonium Metal/Oxides (containers)		
Key Milestones		
# Complete transfer of highly enriched uranium solution to double walled tank (July 2001).		
# Begin converting pre-existing H-Area Pu-239 solution to oxide (November 2001).		

SR-NM04 / Canyon Exhaust Line Item 10,389 4,904 2,867

The Canyon Exhaust Line Item project, 92-D-140, replaces critical exhaust system components in both F and H Canyons. The canyon exhaust system controls radioactive contamination during normal operation and also provides protection against radioactive releases to the environment. This project replaces the aging critical electrical and mechanical exhaust equipment in both F- and H-Canyons consistent with the Savannah River Site Safety Criteria and Federal and State air exhaust and underground tank regulations. The project scope covers rerouting of the canyon recycle vessel vent systems; removes and replaces the six underground diesel fuel storage tanks; and, replaces the existing canyon exhaust fan and diesel houses, as well as two F-Canyon process vessel ventilation systems.

Continue F-Canyon exhaust upgrade project.

Key Milestones		
# Physical completion of H-Area Canyon Exhaust fans (June 2001).		

SR-NM09 / 235-F Packaging and Stabilization 7,991 0 0

The Department of Energy committed, in the Implementation Plan for the Defense Nuclear Facilities Safety Board Recommendation 94-1, to meet the DOE Standard, Stabilization, Packaging, and Storage of Plutonium-Bearing Materials (DOE-STD-3013) by May 2002. While it was intended that the subproject, Actinide Packaging and Storage Facility, contained in Project 97-D-450, Nuclear Material Storage Project, would satisfy this need, DOE has canceled the Actinide Packaging and Storage Facility subproject. The 235-F Packaging and Stabilization project was authorized to provide for thermal stabilization and packaging to meet DOE-STD-3013. The project included installation of thermal stabilization and packaging equipment in Building 235-F. Modifications would have been made to existing support equipment and services to accommodate the stabilization and packaging process.

The 235-F Packaging and Stabilization project was cancelled effective June 2001.

(dollars in thousands)

FY 2001	FY 2002	FY 2003
---------	---------	---------

SR-NM10 / Plutonium Packaging and Stabilization 8,500 22,261 2,224

The Department of Energy committed, in the Implementation Plan for the Defense Nuclear Facilities Safety Board Recommendation 94-1, to meet the DOE Standard for Stabilization, Packaging, and Storage of Plutonium Bearing Materials (DOE-STD-3013) by May 2002. DOE has subsequently canceled 2 projects intended to meet that commitment (the Actinide Packaging and Storage Facility and the 235-F Stabilization and Packaging project). The Department now intends to establish a plutonium stabilization and packaging capability in the FB-Line facility. In FY 2001, began design and procurement.

Continue construction, startup and turnover in the FB-Line facility.

The project is planned to be completed and closed out in FY 2004.

SR-PED / Preliminary Project Engineering and Design 15,466 0 0

This project will provide for Architect-Engineering (A-E) services (preliminary and final design) for the Security System Restoration project. This allows the designated project to proceed from conceptual design into preliminary design and final design. The design effort will be sufficient to assure project feasibility, define the scope, provide detailed estimates of construction costs based on the approved design and working drawings and specifications, and provide construction schedules, including procurements. Conceptual design studies will be completed using operation and maintenance funds. The use of a Project Engineering and Design line-item will enable the project to proceed immediately upon completion of the conceptual design into preliminary and final designs. It will permit acceleration of design schedules, provide savings in construction costs based on current rates of inflation, and permit more mature cost, schedule, and technical baselines for projects when the budget is submitted. It will also be extensive enough so that construction can physically start or long-lead procurement items can be procured in the fiscal year in which appropriations are received. Preliminary project engineering and design activities will be funded within project funding as appropriate.

No activity.

Total, Savannah River 442,681 385,621 337,880

Explanation of Funding Changes

FY 2003 vs. FY 2002 (\$000)

SR-HL11 / Tank Farm Support Services F-Area

Decrease reflects the completion of construction of the project. -1,699

SR-IN05 / Chlorofluorocarbon Heating, Ventilation and Air Conditioning Chiller Retrofit

Environmental Management/Defense Environmental
Restoration and Waste Management/Site/Project
Completion/Savannah River

FY 2003 Congressional Budget

FY 2003 vs. FY 2002 (\$000)

# Decrease reflects completion of construction	-5,445
SR-IN10 / Decontamination of Laboratory Facilities, 772-F and 773-A	
# Decrease reflects no activity in FY 2003	-100
SR-NM01 / F-Area Stabilization Project	
# Decrease reflects completion of suspension of F-Canyon stabilization missions and cancellation of the Americium/Curium vitrification project	-4,118
SR-NM02 / H-Area Stabilization Project	
# Decrease reflects schedule delays for H-Canyon and HB Line activities	-14,305
SR-NM04 / Canyon Exhaust Line Item	
# Decrease reflects delay start on the Old HB Line Ventilation System Upgrade and delay completion of the F-Canyon Exhaust Upgrade project	-2,037
SR-NM10 / Plutonium Packaging and Stabilization	
# Decrease reflects additional \$20,000,000 appropriated in FY 2002 provided for construction project 02-D-420. The project is nearly fully-funded with the additional \$20,000,000	-20,037
Total Funding Change, Savannah River	<u>-47,741</u>

Capital Operating Expenses & Construction Summary

Capital Operating Expenses

(dollars in thousands)

	FY 2001	FY 2002	FY 2003	\$ Change	% Change
General Plant Projects	19,958	9,762	17,376	+7,614	77.9%
Capital Equipment	9,196	12,739	5,127	-7,612	-59.7%
Total, Capital Operating Expense	29,154	22,501	22,503	2	0.0%

Construction Projects

(dollars in thousands)

	Total Estimated Cost (TEC)	Prior Year Appropriations	FY 2001	FY 2002	FY 2003	Unappropriated Balance
02-D-402 INTEC Cathodic Protection System Expansion, ID	6,000 ^a	0	0	3,152	1,119	1,729
02-D-420 Plutonium Packaging and Stabilization Project, SR ^b	22,000 ^c	0	0	20,000	2,000	0
01-D-418 Plutonium Packaging and Stabilization Project, SR	N/A	0	8,500 ^d	0	0	N/A
01-D-414 Environmental Management, Project Engineering and Design, VL	N/A	0	17,262 ^e	2,754	5,125	N/A

^a The total estimated cost includes \$604,000 which is reflected under line item 01-D-414, Project Engineering and Design.

^b FY 2001 Appropriation for Construction Project 01-D-415, (\$3,991,000), FY 2001 Supplemental Appropriation for 01-D-414 (\$7,500,000), and 01-D-418 (\$8,500,000) have all been canceled and funds transferred to 02-D-420 (\$20,000,000) through the FY 2002 Appropriation.

^c The total estimated cost includes \$7,500,000 which is reflected in the FY 2001 Appropriation under line item 01-D-414, Project Engineering and Design.

^d FY 2001 Supplemental Appropriation. Since this line item was not authorized, funds offered up in exchange for 02-D-420. (See footnote "b.")

^e Reflects a reduction of \$38,000 for the FY 2001 rescission. The original appropriation was \$17,300,000.

(dollars in thousands)

	Total Estimated Cost (TEC)	Prior Year Appropriations	FY 2001	FY 2002	FY 2003	Unappropriated Balance
01-D-415 235-F Packaging and Stabilization Project, SR	184,000 ^a	0	3,991 ^b	0	0	N/A
99-D-402 Tank Farm Support Services, F&H Area, SR	18,582	5,845	7,697 ^c	5,040	0	0
99-D-404 Health Physics Instrumentation Laboratory, ID	12,777	5,786	4,291 ^d	2,700	0	0
98-D-453 Plutonium Stabilization and Handling System for PFP, RL	35,096	26,500	6,686 ^e	1,910	0	0
97-D-470 Regulatory Monitoring and Bioassay Laboratory, SR	31,260	27,320	3,940 ^f	0	0	0
96-D-471 CFC HVAC/Chiller Retrofit, SR	44,200	27,472	12,484 ^g	4,244	0	0
92-D-140 F&H Canyon Exhaust Upgrades, SR	79,395	47,567	8,859 ^h	0	0	22,969
86-D-103 Decontamination and Waste Treatment Facility, LLNL	62,362	59,623	1,977 ⁱ	762	0	0
Subtotal, Construction Funded		<u>200,113</u>	<u>75,687</u>	<u>40,562</u>	<u>8,244</u>	<u>24,698</u>

^a The total estimated cost included \$15,466,000 under line item 01-D-414, Project Engineering and Design, the 235-F packaging and Stabilization project, which was canceled effective June 2001. (See footnote "b" on previous page.)

^b Reflects a reduction of \$9,000 for the FY 2001 rescission. The original appropriation was \$4,000,000.

^c Reflects a reduction of \$17,000 for the FY 2001 rescission. The original appropriation was \$7,714,000

^d Reflects a reduction of \$9,000 for the FY 2001 rescission. The original appropriation was \$4,300,000.

^e Reflects FY 2001 \$5,000,000 internal reprogramming to accelerate equipment installation from the outyears and a reduction of \$4,000 for the FY 2001 rescission. The original appropriation was \$1,690,000.

^f Reflects a reduction of \$9,000 for the FY 2001 rescission. The original appropriation was \$3,949,000.

^g Reflects a reduction of \$28,000 for the FY 2001 rescission. The original appropriation was \$12,512,000.

^h Reflects a reduction of \$20,000 for the FY 2001 rescission. The original appropriation was \$8,879,000.

ⁱ Reflects transfer of \$19,000 in FY 2001 to the Office of Security and Emergency Operations to support the safeguards and security activities associated with this project and a reduction of \$4,000 for the FY 2001 rescission. The original appropriation was \$2,000,000.

**Environmental Management/Defense Environmental
Restoration and Waste Management/Site/Project
Completion/Capital Operating Expenses &
Construction Summary**

FY 2003 Congressional Budget

(dollars in thousands)

	Total Estimated Cost (TEC)	Prior Year Approp- riations	FY 2001	FY 2002	FY 2003	Unappropri- ated Balance
Operating Expense Funded						
99-EXP Laboratory Facilities Roof and Shielded Area Restoration, 773-A & 772-F,						
SR ^a	N/A	6,214	1,616	0	0	N/A
96-EXP Americium/Curium Vitrification, SR ..	N/A	25,894	19,435	13,679	0	N/A
Subtotal, Operating Expense Funded	N/A	32,108	21,051	13,679	0	N/A
Total, Project Funding	N/A	232,221	96,738	54,241	8,244	24,698

^a This project was included in the FY 2000 as a new start, 00-EXP. Due to the urgent need to address the deteriorating condition of Building 773-A roofs, the project was accelerated into FY 1999. The follow-on activities in FY 2000 and beyond have also been accelerated.

02-D-402, INTEC Cathodic Protection System Expansion Project, Idaho National Engineering and Environmental Laboratory, Idaho Falls, Idaho (ID-OIM-117)

(Changes from FY 2002 Congressional Amendment are denoted with a vertical line [|] in the left margin.)

Significant Changes

- # The Total Project Cost has been reduced by \$20,000; \$19,000 to support safeguard and security activities and \$1,000 to support an FY 2001 rescission.
- # The Total Estimated Cost (TEC) may require adjustment following completion of the preliminary design cost estimate and prior to CD-2 approval that is scheduled for the second quarter of FY 2002.
- # Modifications to Critical Decisions 2 and 3 dates (reference Section 3), are contingent on exercising INEEL's internal reprogramming authority. Once internal reprogramming is approved, Sections 2, 4, and 6 will be updated.

1. Construction Schedule History

	Fiscal Quarter				Total Estimated Cost (\$000)	Total Project Cost (\$000)
	A-E Work Initiated	A-E Work Completed	Physical Construction Start	Physical Construction Complete		
FY 2001 Budget Request (<i>Preliminary Estimate</i>)	2Q 2001	2Q 2002	3Q 2002	4Q 2004	6,000	6,709
FY 2002 Budget Request (<i>Preliminary Estimate</i>)	2Q 2001	2Q 2002	3Q 2002	4Q 2004	6,000	6,689
FY 2003 Budget Request (<i>Preliminary Estimate</i>)	2Q 2001	2Q 2002	3Q 2002	4Q 2004	6,000	6,689

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
2001 (PED-01-D-414)	499 ^a	499	216
2002 (PED-01-D-414)	104	104	253
2002	3,152	3,152	1,603
2003	1,119	1,119	2,644
2004	1,126	1,126	1,284

3. Project Description, Justification and Scope

The Cathodic Protection System Expansion Project will upgrade the existing cathodic protection system located at Idaho Nuclear Technology Engineering Center at the Idaho National Engineering and Environmental Laboratory. This project is necessary to provide reliable cathodic protection as necessary to prevent underground system failures, environmental contamination, and impacts to meeting the Idaho Settlement Agreement. The project is being designed and will be constructed using standard components and techniques, incorporating improvements in technology that have occurred over the years. Since the scope of the project is well-defined and standard components and subsystems will be used to upgrade the system, the risk of significant changes in the preliminary baseline are relatively low.

The existing cathodic protection system has been in operation at this facility since 1961, and must remain operational until at least 2035. Currently the majority of this cathodic protection system has exceeded its 20-year design life. At present, there exists at Idaho Nuclear Technology Engineering Center over 4 miles of metallic underground radioactive waste piping, 1.1 miles of underground off-gas lines, over 5 miles of other metallic underground piping systems, and several underground metallic fuel storage structures that must be protected from external corrosion. Visual inspection of underground metallic piping, which is anywhere from 6 to 20 feet below grade, would require extensive excavation and destructive examination to determine the extent of corrosion to the pipe. This type of inspection would be cost prohibitive and would not provide a comprehensive condition status. In order for the Department of Energy to protect the environment, comply with CFRs, and meet all mandatory and legal agreements, a well-maintained impressed cathodic protection system is required to be operational until at least 2035.

Idaho Nuclear Technology Engineering Center at the Idaho National Engineering and Environmental Laboratory has an extensive cathodic protection system installed to prevent metallic underground piping

^a Reflects an FY 2001 rescission of \$1,000. The original appropriation was \$500,000. The design funds are requested in the Project Engineering and Design data sheet, Project 01-D-414 (Subproject 01-01).

and structures from corrosion. The High Level Liquid Waste Tank Farm Resource Conservation and Recovery Act interim status document requires, a fully operating cathodic protection system that meets the criteria contained in 40 CFR 264, and 265. The Cathodic Protection System Expansion Project incorporates replacing anodes that have exceeded their design life in numerous areas of the Idaho Nuclear Technology Engineering Center, adding additional anodes where required for complete protection, and installing permanent reference electrodes for more accurate survey readings.

The anodes installed in the Tank Farm and the Dry Fuel Storage Area have exceeded their design life of 20 years. Annual surveys of these areas have revealed reduced voltage drops indicative of anode wear. Leaks from underground tanks, piping, or vaults could occur from these areas and would result in a Resource Conservation and Recovery Act violation. Without a properly functioning cathodic protection system, the risk of a structural or piping failure increases.

The 1996 annual cathodic protection system survey revealed out-of-tolerance operating conditions for the Tank Farm. Negative out-of-tolerance readings indicate that full protection to steel structures is not being obtained. With negative out-of-tolerance readings, partial protection to the underground structures will occur. When underground structures receive partial protection they are subject to corrosion at a higher rate than at full protection. The 1996 survey also indicated some positive out-of-tolerance readings from possible anode and/or cable failures.

In 1997 a cathodic protection/corrosion engineer was contracted by the operating contractor to evaluate the condition of the Tank Farm cathodic protection system and provide short and long-term recommendations for cathodic protection system repairs at the Tank Farm. Short-term recommendations have been incorporated and the long-term recommendations are included in the scope of this project and include the recommendation to replace all anodes that have over five years of service as recommended by cathodic protection/corrosion engineers. A study is in process to effectively determine the life expectancy of anodes at the Idaho Nuclear Technology Engineering Center.

The vessels and piping in the Tank Farm contain or have contained high level radioactive liquid wastes that resulted from the chemical reprocessing of spent nuclear fuels. A structural failure of transfer lines in the Tank Farm and the Dry Fuel Storage Area could release into the soil high level radioactive wastes. These wastes contain significant amounts of mixed radioactive fission products, actinides, and Environmental Protection Agency listed hazardous and toxic chemicals. A liquid released into the soil could theoretically migrate to the groundwater below and contaminate the Snake River Plain Aquifer. Any contamination of the groundwater with high level liquid waste would be virtually impossible to reverse and, therefore, must be viewed in terms of the negative impact on the aquifer, its entire ecosystem, and public perception thereof. In addition, any release would require the suspension of compliance agreement activities. The Settlement Agreement between the Department of Energy and the State of Idaho requires that the Tank Farm be emptied by 2012. Other underground metallic systems must remain operational until at least 2035. The Idaho Nuclear Technology Engineering Center Fire Water System provides fire protection to facilities at the Idaho Nuclear Technology Engineering Center and a loss of the system due to corrosion and leaks would result in a increased risk of life safety issues to Idaho Nuclear Technology Engineering Center facilities and personnel. An incident or failure of any of

these systems would likely cause Settlement Agreement milestones to be missed with significant legal and political repercussions at State and Federal levels.

Cathodic protection does not eliminate corrosion but merely transfers the corrosion from protected structures or piping elsewhere. In a properly working system this corrosion occurs at the sacrificial anode which accounts for their wear while a cathodic protection system is operating. When anodes are depleted cathodic protection can be lost and the formally protected structures become unprotected, allowing corrosion to occur. A carbon steel pipe that is protected by the cathodic protection system and considered fully protected according to National Association of Corrosion Engineers criteria may be subjected to the loss of 1.4 mil of material per year. Fully protected to National Association of Corrosion Engineers means that the structure being protected meets one of the three criteria contained in National Association of Corrosion Engineers Standard RPO-169-92 for steel and cast iron piping. The majority of piping at the Idaho Nuclear Technology Engineering Center is constructed of carbon steel. The Idaho Nuclear Technology Engineering Center Tank Farm piping is constructed from corrosion resistant materials (stainless steel) and employs a cathodic protection system for additional corrosion protection.

All underground piping systems and structures which have a cathodic protection system must be electrically bonded (e.g., piping is connected together by a common ground). If underground structures or piping systems become unbonded from the cathodic protection system, "stray corrosion currents" can occur, resulting in a greatly accelerated corrosion rate. Past experience at the Idaho Nuclear Technology Engineering Center has shown that stainless steel piping not bonded, while nearby cathodic protection systems are operating, failed much sooner than fully protected piping system.

This project will support the continued operation of the Tank Farm for the near future and operation of the underground utilities and dry fuel storage for the next 30 years, while maintaining compliance with the Settlement Agreement between the Department of Energy and the State of Idaho. Cathodic protection shall be provided on all underground metallic structures throughout the Idaho Nuclear Technology Engineering Center. This protection shall be provided in accordance with the most recent edition of National Association of Corrosion Engineers International Requirement RPO-169, "Standard Recommended Practice – Control of External Corrosion on Underground or Submerged Metallic Piping Systems."

The Cathodic Protection Center Expansion Line Item Project will include installing reference electrode wells in the Dry Fuel Storage Area CPP-749. Use of these wells will provide accurate monitoring of CPP-749 underground metal irradiated dry fuel storage vaults. Additional anode replacements and/or new anodes may be required in this area based on the studies performed during design.

The underground fire water system at Idaho Nuclear Technology Engineering Center requires additional rectifiers and anodes to be added to the underground fire water system. This project will bond all piping found not connected to the present cathodic protection system. Some of the existing fire water system has degraded over the years due to corrosion. The potential exists for unbonded piping to be found in the existing system. Cathodic protection system is required for propane lines and tanks at the Idaho Nuclear Technology Engineering Center. Currently this system is incomplete and will require all lines not bonded to the existing cathodic protection system to have a test bond lead attached to the lines.

| Compliance with Project Management Order

- | • Critical Decision - 0: Mission Need Approved - July 28, 1998.
- | • First External Independent Review: Completed - August 15, 2000, by LMI.
- | • Critical Decision - 1: Completed - April 9, 2001.
- | • Second External Independent Review (Pre CD-2): Completed - August 8, 2001, by LMI.
- | • Critical Decision - 2: Planned for April 2002.
- | • Third External Independent Review (Pre CD-3): Planned for March 2002.
- | • Critical Decision - 3: Planned for June 2002.

4. Details of Cost Estimate ^a

(dollars in thousands)		
	Current Estimate	Previous Estimate
Design Phase ^b		
Preliminary and final design costs (design drawings and specifications)	327	308
Design management costs (0.5% of TEC)	30	31
Project management costs (3.2% of TEC)	190	192
Total, Design Costs (9.1% of TEC)	547	531
Construction Phase		
Improvements to Land	15	15
Utilities (Cathodic Protection)	2,766	2,766
Removal cost less salvage	10	10
Inspection, Design and Project Liaison, Testing, Checkout and Acceptance	460	460
Construction management costs (11.0% of TEC)	660	660
Project management costs (7.6% of TEC)	458	458
Total, Construction Costs	4,369	4,369
Contingencies		
Design Phase (0.9% of TEC)	56	73
Construction Phase (17.1% of TEC)	1,028	1,027
Total, Contingency (18.0% of TEC)	1,084	1,100
Total, Line Item Costs (TEC)	6,000	6,000

The level of confidence for completing this project for the Total Estimated Cost of \$6,000,000, as identified in the Project Engineering and Design data sheet is high. The preliminary design initiated in FY 2001 verified the preliminary estimates, since the scope is well defined and standard components and subsystems will be used to upgrade existing systems.

^a The estimate is based on the nearly completed Preliminary Design Work. It was prepared utilizing the INEEL Cost Estimating Guide (DOE/ID 10473). Escalation rates applied to this cost estimate are FY 2001-2.3%; FY 2002-2.4%; FY 2003-2.8%, and FY 2004-2.9% based on Anticipated Economic Escalation Rates for DOE Construction Projects.

^b The design funds are requested in the Project Engineering and Design data sheet, Project 01-D-414 (Subproject 01-01).

5. Method of Performance

The Department of Energy Idaho Operations Office will be responsible for implementation of the project. DOE-Idaho project management will be performed by the INTEC Programs Division personnel. Review of contractor furnished safety, environmental, and other project support will be furnished to the project on an as needed basis by the DOE-Idaho organization.

Bechtel BWXT, LLC (BBWI), as the operating contractor, will provide project management services to coordinate all project activities. BBWI will be responsible for the development of the projects technical requirements, completion of the Architectural and Engineering design, review and management of the engineering and construction activities, construction subcontracting, coordination of the activities of construction subcontractors, system operability testing, and turnover of the completed project. For construction, fixed priced subcontracts will be utilized to the maximum extent possible.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2001	FY 2002	FY 2003	Outyears	Total
Project Cost						
Facility Cost						
Design ^{a, b}	0	216	253	0	0	603
Construction	0	0	1,603	2,644	1,284	5,397
Total Facility Cost	0	216	1,856	2,644	1,284	6,000
Other Project Cost						
Conceptual design costs	133	0	0	0	0	133
NEPA and Cathodic Alternatives Study	75	0	0	0	0	75
Other project-related costs	22	47	162	125	125	481
Total other project costs	230	47	162	125	125	689
Total, Project Costs	230	263	2,018	2,769	1,409	6,689

^a The design costs are requested in the Project Engineering and Design data sheet, Project 01-D-414 (Subproject 01-01).

^b Design - The design costs are based upon the Conceptual Design Report (CDR). The conceptual design cost estimate was prepared utilizing the INEEL Cost Estimating Guide (DOE/ID 10473). Construction - The construction costs are based upon the CDR. The conceptual design cost estimate was prepared utilizing the INEEL Cost Estimating Guide (DOE/ID 10473). NEPA documentation - The NEPA costs represent operating funding which was spent in the development of the Environmental Checklist, the Environmental Assessment, and the Permit to Construct. Other project related costs funds are required to support the following activities: (1) Task Baseline Development of the Title Design; (2) development of Project Execution Plan; (3) radiation control (technical) support; (4) NEPA Documentation; (5) design and constructibility reviews; (6) operating contractor/operator project support during construction; (7) preliminary construction management planning; (8) System Operability testing; (9) decontamination costs; (10) quality level determinations; (11) development of operational procedures, testing and startup; (12) preliminary safety analyses and reports; (13) readiness reviews for startup and operations; (14) security/escorts; (15) training of operating and maintenance personnel; (16) operations support for system outages; (17) Occupational Safety Reviews and Facility Transfer; (18) Project completion reports including lessons learned; (19) financial closure of project; and (20) file transfer and records storage of completed project.

**Environmental Management/Defense
Environmental Restoration and Waste Management/
Site/Project Completion/
02-D-402 INTEC Cathodic Protection
Expansion Project**

FY 2003 Congressional Budget

7. Related Annual Funding Requirements

(dollars in thousands)

	Current Estimate	Previous Estimate
Related annual costs (estimated life of project -- 30 years) ^a		
Annual utility costs	6	6
Annual facility operating costs	180	180
Facility maintenance and repair costs	30	30
Total related annual funding	216	216
Total operating costs (operating from 2004 through 2033)	6,480	6,480

^a Related annual costs: Annual Facility Operating Costs – Includes operating labor costs and maintenance costs for required monthly system evaluations and documentation by facility engineer and miscellaneous other support such as supervision and administrative support. Total FTE of 1.5. Utility Costs - Addresses cover 7.5 kwh/h x 8760 x .082 \$/kwh. Facility Maintenance Costs - includes the cost of 2 repairs per year @ \$10K each and \$5K materials.

02-D-420, Plutonium Packaging and Stabilization Project, Savannah River Site, Aiken, South Carolina (SR-NM10)

(Changes from FY 2001 Supplemental Budget are denoted with a vertical line [|] in the left margin.)

Significant Changes

- # This project is a replacement for 01-D-418, Plutonium Packaging and Stabilization Project, Savannah River Site, Aiken, South Carolina, which received appropriations in the FY 2001 Supplemental request, but was not authorized. It has received an appropriation of \$20,000,000 in Section 3102 of the FY 2002 Conference Report and has been authorized at \$20,000,000 in Section 3102 of the FY 2002 House Authorization Bill. Conceptual design is complete and preliminary design has been completed for the long-lead procurements.

1. Construction Schedule History

Fiscal Quarter				Total Estimated Cost (\$000)	Total Project Cost (\$000)
A-E Work Initiated	A-E Work Completed	Mobilization Start	Physical Construction Complete		

FY 2001 Supplemental (CDR
Preliminary Baseline Range) . .

4Q 2001	2Q 2002	2Q 2002	2Q 2004	22,000 ^a	29,000
---------	---------	---------	---------	---------------------	--------

^a All data based on a parametric analysis during the conceptual phase. \$14,500,000 is required for long-lead procurement and construction and \$7,500,000 is required for preliminary and final design (PE&D Project 01-D-414).

2. Financial Schedule ^a

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Cost
2001 Supplemental	-8,500 ^b	0	0
2001 (PED)	-7,500 ^c	0	0
2001	-4,000 ^d	0	0
2002	20,000 ^e	20,000	14,600
2003	2,000	2,000	7,400

3. Project Description, Justification and Scope

In the Implementation Plan for the Defense Nuclear Facilities Safety Board Recommendation 2000-1, the Department of Energy committed to stabilize and package all plutonium at the Savannah River Site in accordance with DOE-STD-3013. This project will provide thermal stabilization and packaging capability in Building 221 FB-Line to meet DOE-STD-3013. The project includes replacement of existing furnaces with higher temperature furnaces, installation of an outer can welder and leak detector, and associated modification and/or upgrades to existing support equipment, systems and services. These modifications and upgrades will be minimum which are necessary to support the thermal stabilization and packaging process including, but not necessarily limited to, safeguards and security, ventilation, cooling, fire detection, nuclear incident monitoring, and material storage.

The procurement and construction efforts support the completion schedule and mitigation of risks associated with project execution. Long-lead equipment procurements include the stabilization furnaces, outer can welder, and leak detector. Risk mitigating, construction activities include demolition and removal of the existing furnaces and interior walls and safeguards and security upgrades. These activities will be integrated with ongoing facility operation and outages on an as available basis. Partial Critical

^a Reflects \$1,000,000 obligations and expenditures incurred in PE&D Subproject 01-04, Plutonium Packaging and Stabilization Project in FY 2001.

^b Appropriated for line item 01-D-418 Plutonium Packaging and Stabilization activities in the FY 2001 Supplemental, but was not authorized.

^c Prior year PED funds of \$7,500,000 appropriated for Project 01-D-414, PE&D were withdrawn below the line in FY 2002 and appropriated as new budget authority under Project 02-D-420.

^d Associated with prior year balances available from the cancellation of 01-D-415, 235F Packaging and Stabilization Project.

^e Appropriated in FY 2002 from a consolidation of prior year balances (a+b+d). (See footnotes above.)

Decision 3 (Start Construction) will be requested for these activities concurrent with Critical Decision 2 (Approve Baseline) or early during final design.

4. Details of Cost Estimate

	(dollars in thousands)	
	Current Estimate	Previous Estimate
Design Phase		
Preliminary and final design costs	5,500	5,500
Design management costs	1,000	1,000
Project management costs	1,000	1,000
Total, engineering, design, inspection, and administration of construction costs	7,500	7,500
Construction Phase		
FY 2002 Advance Procurement	4,000	2,000
Outyear Advance Procurement	0	0
Construction	10,500	12,500
Total, Construction Costs	14,500	14,500
Total, Line Item Costs (TEC)	22,000	22,000

5. Method of Performance

Design, construction, and procurement may be accomplished by the Management and Operating contractor. Specific scopes of work within this project may be accomplished by fixed-price contracts awarded on the basis of competitive bidding.

The project will be conducted in accordance with the project management requirements in DOE Order 413.3, Program and Project Management for the Acquisition of Capital Assets.

Compliance with Project Management Order

- Critical Decision - 0: Mission Need - June 2001
- Critical Decision - 1: Preliminary Baseline Range - September 2001
- Critical Decision - 0: Performance Baseline - March 2002
- Critical Decision - 0: Start of Construction - July 2002
- Critical Decision - 0: Project Closeout - April 2004

6. Schedule of Project Funding ^a

(dollars in thousands)

	Prior Years	FY 2001	FY 2002	FY 2003	Outyears	Total
Project Cost						
Facility Cost						
Design	0	0	7,500	0	0	7,500
Construction	0	0	7,100 ^b	7,400	0	14,500
Total Facility Costs	0	0	14,600	7,400	0	22,000
Other Project Costs						
R&D necessary to complete project	0	0	0	0	0	0
Conceptual design costs	0	0	0	0	0	0
Other project-related costs	0	500	3,000	3,500	0	7,000
Total other project costs	0	500	3,000	3,500	0	7,000
Total, Project Costs	0	500	17,600	10,900	0	29,000

7. Related Annual Funding Requirements

(dollars in thousands)

	Current Estimate	Previous Estimate
Annual facility operating costs	TBD	TBD
Annual facility maintenance/repair costs	TBD	TBD
Annual utility costs	TBD	TBD
Total related annual funding (operating from <i>FY 2004 through FY 2007</i>)	TBD	TBD

^a Reflects \$1,000,000 design costs obligated and expended in line item 01-D-414, Project, Engineering and Design, subproject 01-04.

^b For long-lead procurement and early construction activities.

01-D-414, Environmental Management, Project Engineering and Design (PED), Various Locations

(Changes from FY 2001 Supplemental Budget Request are denoted with a vertical line [|] in the left margin.)

Significant Changes

None.

1. Schedule History

	Fiscal Quarter				Total Estimated Cost (\$'000)
	A-E Work Initiated	A-E Work Completed	Physical Construction Start	Physical Construction Complete	
FY 2001 Congressional Amendment (<i>Preliminary and Final Design Only</i>)	1Q 2001	3Q 2003	N/A	N/A	64,724
FY 2002 Budget Request (<i>Preliminary and Final Design Only</i>)	"	"	"	"	47,673
FY 2001 Supplemental (<i>Preliminary and Final Design Only</i>)	"	"	"	"	20,561
FY 2003 Budget Request (<i>Preliminary and Final Design Only</i>)	"	4Q 2004	"	"	20,561

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
2001	17,262 ^{a b}	4,431	3,950
2002	2,754	8,085	8,087
2003	5,125	5,125	5,386
2004	2,920	2,920	3,138

^a Reflects a reduction of \$38,000 for the FY 2001 rescission. The original appropriation was \$17,300,000.

^b Includes \$15,466,000 appropriated for 235-F Packaging and Stabilization Facility. That subproject was canceled and 7,500,000 was transferred to line item 02-D-420 in the FY 2002 Appropriation. However, all appropriations, obligations, and costs remain in this project funding profile.

3. Project Description, Justification and Scope

This construction project data sheet summarizes the Environmental Management requirements for architect-engineering services preliminary design and final design for several projects. This data sheet outlines projects which will be proceeding from conceptual design into preliminary design and final design. The design effort will be sufficient to assure project feasibility, define the scope, provide detailed estimates of construction costs based on the approved design and working drawings and specifications, and provide construction schedules including procurements. Only one subproject is requesting funding in FY 2003.

As outlined in the FY 2001 House and Senate Energy and Water Development Appropriations Bills report language, both committees support the Department in requesting “project engineering and design” funds for the purpose of achieving a 30-35 percent level of engineering design for new construction projects, prior to providing data to the Congress in support of construction funding. Such an advanced design should provide a more mature technical and cost baseline, ensuring greater likelihood of achieving project cost and schedule adherence.

Conceptual design studies are prepared for each project using operations and maintenance funds. These studies define the scope of the project and produce a rough cost estimate and schedule. Currently they are completed 9-12 months before a Congressional budget is submitted requesting line item funding for a project. The effect of this process is that the conceptual design study is at least 24 months old by the time a line-item appropriation for the project is enacted. Also, the past procedure has forced the program manager to “baseline” the design and construction costs and schedules based only on a conceptual design. The use of project engineering and design funds will: 1) enable a project to proceed immediately upon completion of the conceptual design into preliminary and final designs because only the design funds are requested, 2) provide a range for the construction cost and schedule, 3) permit acceleration of new facilities providing savings in construction costs based on current rates of inflation, and 4) permit more mature cost, schedule, and technical baselines for projects when the construction funds are requested from the Congress.

Following completion of preliminary design activities, Environmental Management personnel will determine preliminary project baselines and provide detailed funding and schedule estimates for final design, physical construction and procurements. In conformance with the guidelines currently being developed by the Department’s Office of Engineering and Construction Management, at the completion of the preliminary design, the appropriate Department acquisition executive will request external independent reviews of the project requirements, scope, schedule, cost and budget. Based upon the results of this assessment, and a review of the continuing programmatic requirement for the project, the acquisition executive will either approve the project baseline and authorize proceeding to final design activities, defer the project or cancel the project.

The project baseline will be the basis for the request to Congress for authorization and appropriations for physical construction and procurement. The request will identify the project baseline and provide the acquisition executive approval to proceed with final design. For certain projects, in order to meet project

schedules, construction and/or procurement activities may be required in the same year as the preliminary design, Project Baseline and Acquisition Executive approval is completed. For those projects, a report will be provided to Congress with the results of preliminary design, project baseline, external independent reviews and acquisition executive approval. Long-lead project and/or construction start will not proceed until 30 days after the report has been submitted to Congress. Each project that proceeds to physical construction will be separated into an individual construction line item, the total estimated cost of which will identify the costs of the engineering and design activities funded through the project engineering and design account.

4. Details of Cost Estimate (Total PED)

	(dollars in thousands)	
	Current Estimate	Previous Estimate
Design Phase ^a		
Preliminary and Final Design Costs (Design Drawings and Specifications)	17,997	38,206
Design Management (Preliminary Design) Costs	589	5,067
Design Management (Final Design) Costs	78	10
Project Management (Preliminary Design) Costs	1,318	4,327
Project Management (Final Design) Costs	579	63
Total Design Costs	20,561	47,673

6. Schedule of Project Funding (Total PED)

	(dollars in thousands)					Total
	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	
Facility Cost						
Design	3,960	8,087	5,386	3,138	0	20,561
Total PED	3,960	8,087	5,386	3,138	0	20,561
Other Project Costs ^b						
Conceptual Design Cost	4,173	0	0	0	0	4,173
NEPA Documentation Costs	80	0	0	0	0	80
Other Project-Related Costs	7,445	5,325	3,275	0	0	16,045

^a The Design Management and Project Management Costs are estimates based on historical records and are preliminary estimates. Any contingency reported in the FY 2001 budget is now included in the preliminary and final design costs.

^b The other project costs include support for work package processing, waste characterization, facility design reviews, temporary modification design and control, and support of facility activities related to the project.

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Total Other Project Costs	11,698	5,325	3,275	0	0	20,298
Total PED and Other Project Costs	15,648	13,412	8,661	3,138	0	40,859

01-02, Immobilized High-Level Waste Interim Storage Facility, Office of River Protection, Washington

Significant Changes

1. None

A-E Work Initiated	A-E Work Completed	Physical Construction		Total Estimated Cost (Design Only \$000)	Full Total Estimated Cost Projection (\$000) ^a
		Start	Complete		
4Q 2001	4Q 2004	3Q 2004	2Q 2006	11,342	109,100

Fiscal Year	Appropriation	Obligations	Costs
2001	1,297 ^b	1,297	1,099
2002	2,000	2,000	2,000
2003	5,125	5,125	5,105
2004	2,920	2,920	3,138

| This design subproject is requesting the third year of funding which provides preliminary and final architect-engineering services associated with the Immobilized High-Level Waste Interim Storage Facility at Richland. Preliminary Design is expected to be completed by September 2002. Funding in FY 2003 will be used to initiate detailed design update Resource Conservation and Recovery Act, Part B, Revision 0, permit application, and for project integration.

The Immobilized High-Level Waste Interim Storage Facility will install systems, structures, and components in vaults 2 and 3 of the Canister Storage Building to enable receipt and storage of immobilized high-level waste. This project also includes a system for transporting immobilized high-

^a The Full Total Estimated Cost Projection (design and construction) is a preliminary estimate based on conceptual data and should not be construed as a project baseline.

^b Reflects a reduction of \$3,000 for the FY 2001 rescission. The original appropriation was \$1,300,000.

level waste canisters from the Waste Treatment and Immobilization Plant to the Canister Storage Building.

Critical Decision 0, Approved Mission Need, was completed in December 1996 through the Energy Systems Acquisition Review Process with DOE/HQ approval. The Conceptual Design Report for the project was completed in April 1998. Critical Decision 0 and the Conceptual Design Report were completed under DOE O430.1A. Validation of the FY 2001 budget request occurred May 25, 1999, and is cited as Critical Decision 1, although that doesn't exist under DOE O430.1A. Remaining Critical Decisions will be completed under the requirements of DOE O413.3.

Compliance with Project Management Order

- Critical Decision - 0: Mission Need Completed December 26, 1996.
- Critical Decision - 1: Conceptual Design/Preliminary Baseline May 25, 1999.
- External Independent Review: Site Review final report issued on May 5, 2000.

4. Details of Cost Estimate

(dollars in thousands)

	Current Estimate	Previous Estimate
--	------------------	-------------------

Design Phase ^a		
Preliminary and Final Design Costs (Design Drawings and Specifications)	9,120	9,120
Design Management (Preliminary Design) Costs	620	620
Project Management (Preliminary Design) Costs	1,602	1,680
Total Design Costs	11,342	11,420

The Design Management and Project Management Costs are estimates based on historical records and are preliminary estimates. The estimate is based on a conceptual design; therefore, there is a moderate degree of confidence in the estimate.

5. Method of Performance

The CH2M Hill Hanford Group will manage the project for the Office of River Protection. A design agent from the onsite architect/engineer pool will perform preliminary design and engineering and inspection during the construction of the Immobilized High-Level Waste Interim Storage Facility Project. Detailed design and construction will be performed by a competitively selected architect-engineer/construction manager with fixed-price contracts utilized to the maximum extent possible.

^a Any contingency reported in the FY 2001 budget is now included in the preliminary and final design costs.

6. Schedule of Project Funding

(dollars in thousands)

	Prior Years	FY 2002	FY 2003	FY 2004	Outyears	Total
Facility Cost						
Design	1,099	2,000	5,105	3,138	0	11,342
Total PED	1,099	2,000	5,105	3,138	0	11,342
Other Project Costs ^a						
Conceptual Design Cost	1,040	0	0	0	0	1,040
NEPA Documentation Costs	5	0	0	0	0	5
Other Project-Related Costs	3,319	1,200	1,025	0	0	5,544
Total Other Project Costs	4,364	1,200	1,025	0	0	6,589
Total PED and Other Project Costs	5,463	3,200	6,130	3,138	0	17,931

^a The other project costs include support for work package processing, waste characterization, facility design reviews, temporary modification design and control, and support of facility activities related to the project.