

Non-Defense Environmental Management

Proposed Appropriation Language

For Department of Energy expenses, including the purchase, construction and acquisition of plant and capital equipment and other expenses necessary for non-defense environmental management activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction or expansion, [~~\$333,618,000~~] \$286,001,000, to remain available until expended, *of which, not to exceed \$10,000,000 shall be available for the Atlas site in Moab, Utah. (Energy and Water Development Appropriations Act, 2000.)*

Explanation of Change

None

Non-Defense Environmental Management

Program Mission

The Environmental Management (EM) program is responsible for managing and addressing the environmental legacy resulting from nuclear energy and civilian energy research programs (DOE Office of Science). These research and development efforts of the U.S. Department of Energy and its predecessors generated waste, pollution, and contamination which pose unique problems, including unprecedented volumes of contaminated soil and water, radiological hazards from special nuclear material, and a large number of contaminated structures. Much of this infrastructure, waste, and contamination still exists and is largely maintained, decommissioned, managed, and remediated by the EM program. EM's responsibilities include facilities and areas located in 30 states and one territory that occupy an area equal to that of the States of Rhode Island and Delaware combined -- or about two million acres.

The FY 2001 request for the Non-Defense Environmental Management appropriation is \$286,001,000, a decrease of \$46.3 million from the FY 2000 appropriation. EM manages and cleans up sites used for civilian, energy research, and non-defense related programs under this appropriation.

Program Goal

The EM program has established a goal of cleaning up as many of its contaminated sites as possible by 2006 in a safe and cost-effective manner. By working towards this goal, EM can reduce the hazards presently facing its workforce and the public, and reduce the financial burden on the taxpayer. The FY 2001 request reflects the EM program's emphasis on site closure and project completion.

Program Objectives

- # Address environmental risks across the DOE complex and ensure that facilities and activities pose no undue risks to the public and worker safety and health.
- # Be in compliance with applicable environmental and other requirements and meet compliance milestones.
- # Continue surveillance and maintenance of facilities.

Performance Measures

EM prepares a performance-based budget that demonstrates the program and project results expected for the resources requested. The EM program performance measures can be found in the site details that follow.

Significant Accomplishments and Program Shifts

- # Re-engineering Waste Management: This effort transfers responsibility from EM to the DOE Office of Science for newly-generated waste at research laboratories managed by the Chicago and Oakland Operations Offices. This concept, endorsed by the National Academy of Sciences and others, holds waste generators and their mission programs more accountable for the waste they generate by having them pay for the treatment, storage, and disposal of their newly-generated waste. This transfer is in accordance with the Memorandum of Agreement between EM and the DOE Office of Science dated April 12, 1999.

Funding Profile

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Original Appropriation	FY 2000 Adjustments	FY 2000 Current Appropriation	FY 2001 Request
Non-Defense Environmental Management					
Site Closure	248,264	216,946	-831	216,115	81,636
Site/Project Completion	101,174	97,750	-365	97,385	64,721
Post 2006 Completion	90,776	18,922	-72	18,850	139,644
Subtotal, Non-Defense	440,214	333,618	-1,268	332,350	286,001
Use of Prior Year Balances	-9,565	0	0	0	0
Contractor Travel Savings	0	0	0	0	0
Total, Non-Defense	430,649	333,618	-1,268 ^a	332,350	286,001

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 106-60, "The Energy and Water Development Appropriations Act, 2000"
 Public Law 96-368, "West Valley Demonstration Project Act of 1980"
 Public Law 95-604, "Uranium Mill Tailings Radiation Control Act (1978)"
 Public Law 100-616, "Uranium Mill Tailings Remedial Action Amendments Act of 1988"

^a Reflects distribution of the Rescission.

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Albuquerque Operations Office					
Atlas Site	0	0	10,000	10,000	>999%
Grand Junction Office	43,731	36,161	20,220	-15,941	-44.1%
Los Alamos National Laboratory	1,611	5,333	3,981	-1,352	-25.4%
Lovelace Biomedical & Environmental Research Institute	499	537	562	25	4.7%
Uranium Mill Tailings Remedial Action Groundwater Project	7,724	12,950	13,400	450	3.5%
Uranium Mill Tailings Remedial Action Surface Project	12,550	0	0	0	0.0%
Total, Albuquerque Operations Office	66,115	54,981	48,163	-6,818	-12.4%
Chicago Operations Office					
Ames Laboratory	254	260	0	-260	0.0%
Argonne National Laboratory - East	19,009	19,709	9,564	-10,145	-51.5%
Argonne National Laboratory - West	1,177	805	611	-194	-24.1%
Brookhaven National Laboratory	30,020	28,439	27,233	-1,206	-4.2%
Chicago Operations Office	319	1,455	505	-950	-65.3%
Princeton Plasma Physics Laboratory	3,143	3,034	0	-3,034	0.0%
Total, Chicago Operations Office	53,922	53,702	37,913	-15,789	-29.4%
Idaho Operations Office					
Idaho National Engineering and Environmental Laboratory	9,983	6,393	1,856	-4,537	-71.0%
Oakland Operations Office					
Energy Technology Eng. Center	15,950	17,159	17,500	341	2.0%
General Atomics	2,843	1,092	100	-992	-90.8%
General Electric	0	500	2,000	1,500	300.0%
Lawrence Berkeley National Laboratory	9,279	10,904	5,000	-5,904	-54.1%
Oakland Operations Office	0	300	100	-200	-66.7%
Stanford Linear Accelerator Center	1,250	1,400	1,400	0	0.0%
Lab for Energy-Related Health Research	5,589	3,687	6,500	2,813	76.3%
Total, Oakland Operations Office	34,911	35,042	32,600	-2,442	-7.0%

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Oak Ridge Operations Office					
Oak Ridge National Laboratory	74,792	3,913	0	-3,913	-100.0%
Oak Ridge Offsite Locations	0	0	0	0	0.0%
Oak Ridge Operations Office	1,998	0	0	0	0.0%
Oak Ridge Reservation	3,137	0	0	0	0.0%
Weldon Spring Site	67,500	51,801	53,116	1,315	2.5%
Total, Oak Ridge Operations Office	147,427	55,714	53,116	-2,598	-4.7%
Ohio Field Office					
Columbus	8,532	7,265	0	-7,265	-100.0%
Miamisburg	1,003	996	0	-996	-100.0%
West Valley	107,224	106,942	107,353	411	0.4%
Total, Ohio Field Office	116,759	115,203	107,353	-7,850	-6.8%
Richland Operations Office					
Hanford Site	1,859	1,394	1,500	106	7.6%
Multi-Site Activities	9,238	9,921	3,700	-6,221	-62.7%
Subtotal, Non-Defense EM	440,214	332,350	286,201	-46,149	-13.9%
Use of Prior Year Balances	-9,565	0	0	0	0.0%
Contractor Travel Savings	0	0	-200	-200	>999%
Subtotal, Non-Defense EM	430,649	332,350	286,001	-46,349	-13.9%

Site Closure

Program Mission

The Non-Defense Site Closure account includes sites where the Environmental Management (EM) program has established the goal to complete its cleanup mission by the end of FY 2006. This account includes funding for the Columbus and Miamisburg Environmental Management Projects in Ohio, projects under the Grand Junction Office in Colorado, Uranium Mill Tailings Remedial Action Groundwater Projects at various locations, and the Weldon Spring Site in Missouri.

Program Goal

Accelerating cleanup and project completion are central goals of the EM program. Environmental Management sites are working to reduce outyear costs by safely completing projects as soon and as efficiently as possible. For those sites in the Site Closure account, the goal of the EM program is to complete the cleanup mission by FY 2006, after which no further Departmental mission is envisioned, except for limited long-term surveillance and maintenance. These sites may be available for some alternative use.

Program Objectives

- # Accelerate cleanup efforts at sites and realize substantial savings by the resulting reduction in long-term program costs and ongoing support costs.
- # Where possible, once the cleanup mission has been accomplished, make sites available to communities for other uses.

Performance Measures

The Environmental Management program prepares a performance-based budget that clearly demonstrates the program and project results expected for the resources requested. The EM program performance measures can be found in the site details that follow this overview.

Significant Accomplishments and Program Shifts

The FY 2001 request reflects the EM's project-oriented structure as a key component of the effort to safely accelerate cleanup and reduce costs. All EM activities are organized into projects, which have a defined scope, schedule, cost, and end state. Specific accomplishments and program shifts may be found in the site details that follow this overview section.

Funding Profile

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Original Appropriation	FY 2000 Adjustments	FY 2000 Current Appropriation	FY 2001 Request
Site Closure	248,264	216,946	-831	216,115	81,636
Total, Non-Defense Site Closure	248,264	218,946	-831^a	216,115	81,636

Public Law Authorization:

Public Law 106-60, "The Energy and Water Development Appropriations Act, 2000"

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

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

Public Law 95-604, "Uranium Mill Tailings Radiation Control Act (1978)"

Public Law 100-616, "Uranium Mill Tailings Remedial Action Amendments Act of 1988"

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Albuquerque Operations Office	64,005	49,111	28,520	-20,591	-41.9%
Oak Ridge Operations Office	67,500	51,801	53,116	1,315	2.5%
Ohio Field Office	116,759	115,203	0	-115,203	-100.0%
Total, Non-Defense Site Closure	248,264	216,115	81,636	-134,479	-62.2%

^a Reflects congressional rescission.

Albuquerque

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management Site Closure Program, managed through the Albuquerque Operations Office, is to complete the cleanup of all release sites assigned to the program and to continue several longer-term programs as required. Virtually all of this work from FY 2000 on will be performed by the Grand Junction Office in Colorado. The release sites include the 57 acre Grand Junction Office facility, the Monticello mill site in Utah, and the 22 inactive uranium millsites that were designated by Congress for cleanup by the Uranium Mill Tailings Radiation Control Act of 1978. Continuing missions include the Long-Term Surveillance and Maintenance Program (transferred to the Post 2006 Completion - Non-Defense Budget Account in FY 2001) and the Uranium Lease Management Program. The current mission also includes facility management of the Grand Junction Office site including waste management at the site. It is no longer cost-effective to operate and maintain the entire 57 acre Grand Junction Office facility for the planned mission. The Department is working with the Grand Junction community to identify options for making all or part of the facility available for other productive uses, while continuing the Grand Junction Office mission in Grand Junction.

Program Goal

The Albuquerque Operations Office goal is to complete cleanup of all geographic sites under this program by FY 2006, with the exception of groundwater cleanup at several of the Uranium Mill Tailings Remedial Action sites. A major milestone is the completion of the Uranium Mill Tailings Remedial Action Surface Project remedial actions in FY 1998 and closeout of the project in FY 1999. At the request of the State of North Dakota, the designations of the two North Dakota Uranium Mill Tailings Remedial Action sites were revoked in FY 1998, reducing the number of Uranium Mill Tailings Remedial Action sites from 24 to 22. The Uranium Mill Tailings Remedial Action Groundwater Project is scheduled to be completed by FY 2012, at which time sites that require longer-term monitoring or maintenance will be transferred to the Long-Term Surveillance and Maintenance Program. The Uranium Lease Program will continue until active leases expire and reclamation of mine sites are completed (estimated to be by FY 2010). The goal for the Grand Junction Office site is to complete the site cleanup, transfer site ownership for alternative uses by the end of FY 2000, and to continue the Department of Energy mission at other facilities in Grand Junction or at a small portion of the facility using a lease-back arrangement.

Program Objectives

The Uranium Mill Tailings Remedial Action Groundwater Project objective is to eliminate or reduce to acceptable levels the potential health and environmental consequences of milling activities on groundwater at inactive uranium processing sites under Public Law 95-604. The Uranium Mill Tailings Remedial Action Groundwater Project uses a risk-based decision-making process that ensures consistency in choosing site-specific active, passive, or no-remediation strategies to comply with groundwater standards. By conducting program compliance in this cost-effective and timely manner, active restoration techniques will likely be limited to only three sites where the level of risk is unacceptable.

The Grand Junction Office continues to decommission buildings at its site under the Grand Junction Office Remedial Action Project to support its disposition activities for facility re-use. Cleanup will be completed by FY 2001 at the Monticello, Utah, mill and vicinity property sites, with the exception of the remediation of the contaminated groundwater, for which a source removal and interim remedial action strategy is being pursued through FY 2005. Beyond FY 2001, the Grand Junction Office will continue to manage the Long-Term Surveillance and Maintenance, Uranium Leasing, Maxey Flats, and Pinellas Environmental Restoration Programs, as well as the ongoing Uranium Mill Tailings Remedial Action Groundwater Project.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table; as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

Uranium Mill Tailings Remedial Action Surface Project

Fiscal Year 1999 was the final budget year for this project. Completed project closure with the licensing and transfer of the final sites to the Long-Term Surveillance and Maintenance Program and the termination of the prime contracts (FY 1999).

Uranium Mill Tailings Remedial Action Groundwater Project

- # Completed four release sites: Mexican Hat, Utah; Rifle, Colorado (two sites); and Grand Junction, Colorado (FY 1999).
- # Started active groundwater restoration at two sites: Tuba City, Arizona and Monument Valley, Arizona (FY 1999).
- # Completed work to furnish an alternate water supply at Monument Valley, Arizona, and completed field investigation at Shiprock, New Mexico (FY 1999).
- # Continue active groundwater restoration at two sites: Tuba City, Arizona and Monument Valley, Arizona (FY 2000).
- # Start active groundwater restoration at Shiprock, New Mexico (FY 2000).

Monticello Projects

- # Hauled and placed final 0.6 million cubic yards of mill tailings in repository; completed cleanup of peripheral and vicinity properties; completed cleanup of the Montezuma Creek Canyon; completed 75 percent of repository cover construction and continued interim remedial action for groundwater (FY 1999).
- # Complete repository cover construction; initiate mill site reclamation; continue interim remedial action for groundwater; and delete the Monticello Vicinity Properties site from the National Priorities List (FY 2000).

Grand Junction Office All Other Projects

- # Conducted site environmental monitoring; decommissioned seven site buildings; provided for facility management support; reimbursed former site contractor for contract close-out; provided support for long-term surveillance and maintenance for up to 31 sites and Uranium Leasing Program activities for 43 sites; and re-started reclamation of disturbed uranium leasing tracts where no lease holder is liable (FY 1999).
- # Conduct site environmental monitoring; decommission remaining site buildings; provide for facility management support; reimburse former site contractor closeout; provide support for long-term surveillance and maintenance for up to 40 sites and Uranium Leasing Program activities for 43 sites; and continue reclamation of disturbed uranium lease tracts where no lease holder is liable (FY 2000).

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
AL-020 / Surface Remedial Action Project	12,550	0	0
AL-022 / Monticello Projects	34,800	21,915	9,140
AL-023 / UMTRA Groundwater	7,724	12,950	13,400
AL-024 / GJO All Other Projects	8,931	14,246	5,980
Total, Albuquerque	64,005	49,111	28,520

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Uranium Mill Tailings Remedial Action Surface	12,550	0	0	0	0.0%
Uranium Mill Tailings Remedial Action Groundwater	7,724	12,950	13,400	450	3.5%
Grand Junction Office	43,731	36,161	15,120	-21,041	-58.2%
Total, Albuquerque	64,005	49,111	28,520	-20,591	-41.9%

Metrics Summary

	FY 1999	FY 2000	FY 2001
Remedial Action/Release Site			
Assessments	8	1	0
Cleanups	9	4	3
Facility Decommissioning			
Assessments	6	5	2
Cleanups	7	17	2

Site Description

Grand Junction Office

The Grand Junction Office is located immediately south of the City of Grand Junction, Colorado, on a 57 acre site adjacent to the Gunnison River. The Grand Junction Office supports environmental management activities in the areas of site characterization, project integration and coordination, remedial design, remedial action, independent verification, decontamination and dismantlement, and long-term surveillance and maintenance. Current Grand Junction Office project assignments include: the Monticello mill site and vicinity properties cleanup; the Grand Junction Office Remedial Action Project; the Long-Term Surveillance and Maintenance Program; the Uranium Leasing Program; the Grand Junction Office Waste Management Program; the Grand Junction Office Landlord Program; and the Uranium Mill Tailings Remedial Action Groundwater Project. The Grand Junction Office Program is comprised of 22 release sites and 44 facilities, and the Uranium Mill Tailings Remedial Action Groundwater Project consists of 22 release sites.

The Grand Junction Office also performs the groundwater cleanup (Pinellas) and Maxey Flats Field Management projects (both contained in the Site/Project Completion Defense account) and other projects in support of the Albuquerque Operations Office and Headquarters.

Monticello Projects

Environmental cleanup efforts at and around Monticello, Utah, include remedial action on a 110-acre inactive Government-owned uranium/vanadium mill processing site and the adjacent private and Department of Energy-owned peripheral properties; assessment and remediation of surface and groundwater contamination near Monticello; and remediation of more than 400 private properties (referred to as "Vicinity Properties") which have been contaminated by mill tailings from the Monticello mill site.

The Monticello Projects are high visibility projects with the Environmental Protection Agency and the State of Utah. The Monticello Vicinity Properties Site and the Monticello Mill Tailings Site, both located in Monticello, Utah, are on the National Priorities List and are being remediated in accordance with the Comprehensive Environmental Response, Compensation and Liability Act. A Federal Facility Agreement among the Department of Energy, the Environmental Protection Agency, and the State establishes the Department of Energy as the responsible party for remedial action and the Environmental Protection Agency as the lead agency for regulation of cleanup. The Environmental Protection Agency shares its decision-making authority with the State of Utah.

Vanadium and uranium were processed at the Monticello mill site from the late 1940's to the late 1950's. Approximately 1.9 million cubic yards of mill tailings remained on the mill site and another 0.6 million cubic yards had been relocated off-site by wind and water erosion, or through use of the material in construction in the City of Monticello and adjacent vicinity and peripheral properties. The sites were listed on the National Priority List because of significant risk to human health associated with the tailings and tailings-contaminated soils. Radon emitted from the tailings piles on the mill site exceeded the Environmental Protection Agency's standards. The tailings deposited in the community posed unacceptable risk of radon accumulation in structures. The tailings piles were in direct contact with an alluvial ground-water flow system, which discharges to Montezuma Creek. Contaminant levels in the creek exceed the State of Utah standards for surface water. The alluvial groundwater has been contaminated by the tailings. While the groundwater is not currently used for domestic consumption, there were no institutional controls to prevent its use, and human consumption would cause unacceptable health risks. As part of an interim remedial action, institutional controls have been established, preventing domestic use of the alluvial groundwater. A Feasibility Study will be completed to support selection of a preferred remedy for restoration of surface and groundwater quality. Tailings deposited in sediments along Montezuma Creek were remediated to control risk to humans and the environment to within acceptable levels.

The Monticello Mill Tailings Site consists of three operable units. Operable Unit I is remediation of the 110-acre mill site requiring removal of tailings and placement into an on-site repository. There were 2,545,000 cubic yards of tailings-contaminated soil removed from off-site property cleanups and the mill site and placed into the repository. The repository was excavated and lined with a Resource Conservation and Recovery Act-equivalent liner system from 1995 to 1997. The EM program is in the process of turning over ownership of the mill site to the community through a cooperative agreement between DOE and the City of Monticello. The City will implement supplemental standards, street repairs, and mill site reclamation. Operable Unit II is remediation of 330 acres of peripheral properties. About 500,000 cubic yards of tailings-contaminated soils was removed from these properties. Operable Unit III is remediation of contaminated groundwater and surface water at the mill site and downstream from the mill site. In FY 1999, a permeable reactive treatment wall was completed as a technology demonstration project for Operable Unit III groundwater contamination. The project is funded by the EM Office of Science and Technology and will be used as an interim measure to demonstrate the effectiveness of reactive barrier walls in reducing groundwater contamination and thus accelerating natural attenuation cleanup at the site. Also included in Operable Unit III was remediation of contaminated sediments deposited along approximately three miles of Montezuma Creek.

The Monticello Vicinity Properties Site entails the remediation of 424 properties contaminated with tailings and/or uranium ore. All properties have been remediated. About 150,000 cubic yards of tailings-contaminated soil was removed from these properties. The Environmental Protection Agency and the State of Utah have accepted all completion reports and the deletion notice for removal of Monticello Vicinity Properties from the National Priorities List was published in the Federal Register in December 1999.

Uranium Mill Tailings Remedial Action Surface

The Uranium Mill Tailings Remedial Action Surface Project was created as a result of Public Law 95-604, "The Uranium Mill Tailings Radiation Control Act of 1978," which authorized the Department to conduct a mill tailings stabilization and control program at 22 inactive uranium ore processing sites that were contaminated with tailings and other byproducts of uranium milling operations. The program included approximately 5,300 associated vicinity properties which became contaminated by windblown waste or debris or contaminated materials used in construction or landscaping. Each mill tailings processing site is comprised of one release site. The Uranium Mill Tailings Remedial Action Surface Project activity supported efforts in eleven states (Arizona, Colorado, Idaho, New Mexico, North Dakota, South Dakota, Oregon, Pennsylvania, Texas, Utah, and Wyoming) and with two Indian tribes. The Uranium Mill Tailings Remedial Action Surface Project was a cost-shared project, with the Federal Government paying 90 percent of the remedial action cost and the States paying ten percent. For the four sites on Indian lands, the Department paid the entire cost of the remedial action. Remedial action at the final two sites (Maybell and Naturita, Colorado) was completed in FY 1998. The remaining activities to complete project closeout of all contracts and the licensing of the remaining sites was accomplished in FY 1999.

Uranium Mill Tailings Remedial Action Groundwater

The Uranium Mill Tailings Remedial Action Groundwater Project is carrying out additional characterization and compliance efforts not covered by the Uranium Mill Tailings Remedial Action Surface Project, at 22 designated uranium mill tailings sites. The project was initially authorized by Public Law 95-604. Each mill tailings site is a groundwater release site. Public Law 100-616 authorized groundwater compliance activities for an unlimited period of time. Where active remedial action is required, the Department will pay 90 percent of the costs; the States will pay ten percent. The Department is responsible for the entire cost of the remedial action for sites on Indian lands. Key activities in FY 1999 were to initiate active groundwater compliance activities at the Tuba City and Monument Valley, Arizona, sites and to complete four release sites (Mexican Hat, Utah; two in Rifle, Colorado; and Grand Junction); complete one alternate water supply at Monument Valley; initiate a field investigation at Naturita, Colorado; and complete a field investigation at Shiprock, New Mexico. Key activities in FY 2000 are to initiate groundwater compliance activities at the Shiprock, New Mexico, site and continue groundwater compliance activities at the Tuba City and Monument Valley, Arizona, sites.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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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 2001 has been reviewed and is appropriated to meet the goals of the sites as outlined in the *Accelerating Cleanup: Paths to Closure*. The funds requested for FY 2001 are appropriated based on historical costs for similar work.

AL-020 / UMTRA - Surface Remedial Action Project

This project stabilized and controlled uranium mill tailings from 22 inactive processing sites. The project was closed out in FY 1999. All funding in FY 1999 was for closeout.

No activity.

AL-020	12,550	0	0
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<p>Metrics</p> <p>This project has associated metrics; however, no metrics are reportable in the 3-year budget profile.</p>
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AL-022 / Monticello Projects

This project provides remediation and restoration of the mill site, cleanup of vicinity and peripheral properties, and surface and groundwater cleanup.

Complete mill site restoration and restoration oversight; provide for Operable Unit I and Operable Unit II Completion Reports and Remedial Action Reports; comply with mill site remediation contract requirements; continue groundwater Operable Unit III interim remedial action, annual monitoring, and Feasibility Study Document Revision; manage Supplemental Standards and Repository Long-Term Surveillance Activities; and provide for the state grant.

AL-022	34,800	21,915	9,140
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics			
Remedial Action/Release Sites			
Cleanups	2	3	3
Key Milestones			
#	Operable Unit I - Repository Construction Complete (September 2000).		
#	Complete three release site cleanups at the Monticello, Utah site (September 2000).		
#	Operable Unit II - Draft Final Remedial Action Report (September 2000).		
#	Operable Unit I - Complete Restoration (July 2001).		
#	Operable Unit I - Draft Final Remedial Action Report (September 2001).		

AL-023 / UMTRA Groundwater

The purpose of the project is to achieve compliance with the Environmental Protection Agency’s groundwater standards at the 22 sites remediated by the Uranium Mill Tailings Remedial Action Surface Project. Contamination at the sites occurred prior to the Department of Energy cleanup of the tailings, and in most cases has migrated beyond the original mill site, and in many cases is underneath adjacent private property.

The Environmental Protection Agency standards for Uranium Mill Tailings Remedial Action Title I sites provide the Department of Energy with the flexibility to achieve compliance through a range of strategies that recognize different levels of risk. Characterization and baseline risk assessments have been conducted at all of the sites, and no one is at immediate risk from using contaminated groundwater. At four sites, where there was a potential for near-term human exposure, alternate water supplies are being provided as interim actions. At this time, it appears that only three sites will require active cleanup, nine sites will achieve compliance through natural attenuation, and the remaining ten sites will employ Supplemental Standards or Alternate Concentration Limits to achieve compliance.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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A Uranium Mill Tailings Remedial Action Groundwater Programmatic Environmental Impact Statement was approved in May 1997, which describes the overall project approach for selecting compliance strategies. Site-specific Environmental Assessments are prepared that tier off of the Programmatic Environmental Impact Statement. These Environmental Assessments are usually 25 pages or less and are prepared to the extent possible by the Department of Energy staff, which minimizes costs.

- # Continue remedial action at Tuba City, Arizona and Monument Valley, Arizona.
- # Maintain Cooperative Agreements and make the Nuclear Regulatory Commission fee payments.
- # Continue site assessments.
- # Perform monitoring at seven sites.
- # Initiate groundwater remedial action at Shiprock, New Mexico.

AL-023 7,724 12,950 13,400

Metrics			
Remedial Action/Release Sites			
Assessments	7	1	0
Cleanups	7	1	0
# UMTRA Groundwater remedial action system to be fully operational at Tuba City, Arizona (March 2000).			
# Complete one release site assessment and one release site cleanup for the UMTRA Groundwater Gunnison, Colorado site (September 2000).			
# Full scale implementation - Monument Valley treatment system (September 2001).			

AL-024 / GJO All Other Projects

Provides for the management of the Uranium Leasing Program, the monitoring of the Grand Junction Office site groundwater, and the former site contract closeout, transition, and liability costs.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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- # Continue Uranium Leasing Program activities for 43 sites and reclamation of disturbed uranium lease tracts where no lease holder is liable; continue surveillance monitoring of Grand Junction Office site groundwater until the transfer into the Long-Term Surveillance and Maintenance Program; reimburse former site contractor for contract closeout costs; and provide for the contract termination, liabilities, and transition costs.
- # Provide for Bendix retiree medical (\$80,000) and Rust employees home loan retiree medical (\$800,000). The Grand Junction Office is obligated to pay the premiums for this medical insurance for the retirees until their death.
- # Provide for Rust litigation (\$320,000) relating to a whistle blower case in which the Department of Energy and Rust are currently involved. Costs have been incurred relating to the case and a hearing with an administrative judge has occurred. His decision will determine whether there will be additional costs. Rust has incurred legal costs for the June hearing.
- # Provide for transition to a new contract (\$1,300,000), including additional cost of contractor overlap, and severance pay for terminated staff.

AL-024	8,931	14,246	5,980
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics			
Release Site			
Assessment	1	0	0
Facility Decommissioning			
Assessments	6	5	2
Cleanups	7	17	2
Key Milestones			
#	Complete transfer of Grand Junction Office site real estate to non-DOE ownership (September 2000).		
#	Complete five facility assessments and nineteen facility cleanups at the Grand Junction Office Site (September 2000).		
#	Complete Building 20 assessment and remedial action (September 2000).		
#	Determine if supplemental limits are applicable for building 7A; remediation will be completed no later than September 30, 2001 (December 2000).		
#	End investigation of Grand Junction Office site test-pits (March 2001).		
#	End demolition/removal Grand Junction Office site test-pits (September 2001).		

Total, Albuquerque	64,005	49,111	28,520
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Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

AL-022 / Monticello Projects

Decrease is due to the FY 2001 completion of Mill-Site Operable Unit I work. -12,775

AL-023 / UMTRA Groundwater

Increase is due to the start of remedial action at Shiprock, New Mexico.. 450

AL-024 / GJO All Other Projects

Decrease as Albuquerque reprioritizes to accelerate completions at the Sandia National Laboratory and the Los Alamos National Laboratory. Also, Long-Term Surveillance and Maintenance has been transferred to the Non-Defense Post 2006 account to PBS AL-031 beginning in FY 2001. -8,266

Environmental Management/Non-Defense
Environmental Management/Site Closure/
Albuquerque

FY 2001 Congressional Request

FY 2001 vs. FY 2000 (\$000)

Total Funding Change, Albuquerque	<u>-20,591</u>
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Oak Ridge

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense, Environmental Management Site Closure program at the Oak Ridge Operations Office is to direct and manage about 1,000,000 cubic yards of waste at the 226 acre Weldon Spring Site Remedial Action Project in Missouri, which includes an abandoned decommissioned uranium processing plant, a contaminated quarry used for waste disposal, as well as numerous vicinity properties that were contaminated during processing operations.

Program Goal

The goal of this program is to use an accelerated remediation strategy to complete the environmental restoration and permanent on-site disposal of waste at the Weldon Spring Site as soon as possible before FY 2006. This will enable the early completion of restoration work to reduce health risks and free up funding to accelerate remediation goals at other Oak Ridge sites. The post remediation activity will be long-term surveillance and maintenance, with the restored land released for unrestricted use.

Program Objectives

The objective is to place all non-releasable contaminated material (soil, debris, pit waste) in the on-site disposal facility for long-term, permanent disposal. Raffinate pit waste will be treated in the Chemical Stabilization/Solidification Facility utilizing state-of-the-art grout technology and placed in the disposal facility. Quarry waste currently in temporary storage will be placed in the disposal facility. Restricted use areas, including the disposal facility, will be placed under long-term surveillance and maintenance until restrictions are no longer needed. The long-term objective for restored land will be to return it to interested local stakeholders for unrestricted use and potential economic development. A stewardship plan in development will determine the appropriate, specific use of unrestricted land.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table; as well as at a project level in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

- # In FY 1999, completed treatment of raffinate pit waste in the Chemical Stabilization/Solidification Facility and placement in the disposal facility, with the last 80,000 cubic yards of grouted waste placed. Completed a large volume of waste placement (equipment, soils, debris) in the disposal facility for a total of 630,000 cubic yards in FY 1999. Initiated the restoration design for the quarry and the main chemical plant site, and the restoration of the raffinate pits. Continue Groundwater Operable Unit Record of Decision.
- # In FY 2000, continue construction of the on-site disposal facility and complete placement of 1,500,000 cubic yards of waste. Begin construction of the disposal facility cover, begin the quarry area and restoration of the borrow area, and initiate chemical plant area restoration and complete raffinate pits restoration. Completed and operation initiated on the engineering and construction of a quarry interceptor trench. Completed and submitted the Groundwater Operable Unit Record of Decision to the Environmental Protection Agency for approval. Complete site water treatment plant dismantling.
- # In FY 2001, continue cell cover construction. Continue with site and support facilities restoration and borrow area restoration. Continue with quarry interceptor trench operation. Complete treatment of trichloroethylene in site groundwater.

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
OR-715 / Weldon Spring Waste Treatment	11,500	3,750	0
OR-775 / Weldon Spring Disposal Facility	56,000	48,051	53,116
Total, Oak Ridge	67,500	51,801	53,116

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Weldon Spring Site Remedial Action Program (WSSRAP)	67,500	51,801	53,116	1,315	2.5%
Total, Oak Ridge	67,500	51,801	53,116	1,315	2.5%

Metrics Summary

	FY 1999	FY 2000	FY 2001
Facility Decommissioning			
Cleanups	0	1	0
Remedial Action/Release Site			
Assessments	0	2	0
Cleanups	3	8	3

Site Description

The site, located 30 miles west of St. Louis, Missouri, was built by the Department of Army and used for explosives production until 1946. It was converted and operated for the Atomic Energy Commission as a feed materials plant between 1955 and 1966. During operations of the plant, the buildings, equipment, immediate terrain, process sewer system, and drainage easement to the Missouri River became contaminated.

The site consists of two separate facilities, the Weldon Spring Quarry (9 acres) and the Chemical Plant Site (217 acres). The latter includes the raffinate disposal areas (51 acres).

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Weldon Spring Site is managed through a fixed fee integrated contract with fixed price subcontracts to ensure the most cost efficient service to the Government. The scope planned for FY 2001 has been reviewed and is appropriate to meet the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure*. The projects included in this section of the budget have had an external, independent cost review by Lockwood Greene Inc. and Project Development Corporation, and the funds requested for FY 2001 are appropriate based on the long history of fixed price contracts at the site.

OR-715 / Weldon Spring Waste Treatment

This project provides for the treatment of waste pit sludges and the subsequent environmental restoration of the four raffinate pits at the Chemical Plant Site so as to place them in a radiologically/chemically safe condition to protect the public and environment. The activities funded in this PBS are currently scheduled to be complete in FY 2000.

Raffinate pit restoration will be completed in FY 2000 and this Project Baseline Summary closed out.

OR-715	11,500	3,750	0
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Metrics			
Release Sites			
Cleanups	1	1	0

OR-775 / Weldon Spring Disposal Facility

This project provides for environmental restoration of the chemical plant and quarry areas so as to place them in a radiologically/chemically safe condition to protect the public and environment. The activities being performed in FY 2001 in the approved project baseline have planned and enforceable milestones as agreed under the Federal Facilities Agreement with the Environmental Protection Agency.

- # Complete waste placement at the on-site disposal facility.
- # Essentially complete disposal facility cover.
- # Continue site and support facilities and borrow area restoration.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Complete engineering for the quarry water treatment plant reclamation; and the interceptor trench will be operational.

Complete treatment of trichloroethylene in site groundwater.

OR-775	56,000	48,051	53,116
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Metrics			
Facility Decommissioning			
Cleanups	0	1	0
Remedial Action/Release Sites			
Assessments	0	2	0
Cleanups	2	7	3
Key Milestones			
# Complete waste placement in the Weldon Spring Site Remedial Action Project disposal unit (September 2000).			

Total, Oak Ridge	67,500	51,801	53,116
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Explanation of Funding Changes from FY 2000 to FY 2001

	FY 2001 vs. FY 2000 (\$000)
OR-715 / Weldon Spring Waste Treatment	
# Work completed in FY 2000.	-3,750
OR-775 / Weldon Spring Disposal Facility	
# Accelerate activities at the disposal facility.	5,065
Total Funding Change, Oak Ridge	1,315

Ohio

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Site Closure Environmental Management program managed through the Ohio Field Office, is to support cleanup activities at two sites. Sites include: the Columbus Environmental Management Project and the Miamisburg Environmental Management Project in the State of Ohio. The West Valley Demonstration Project in the State of New York has been transferred to the Non-Defense Post 2006 appropriation for FY 2001 and beyond ^a.

Program Goal

The goal for all Ohio Field Office sites is the disposition of real property to the state(s) or communities, resulting in an environmentally-restored end state by FY 2006. These goals consist of continuing remedial actions to prevent the spread of existing contamination; complete the ongoing remedial action and decontamination activities at Columbus Environmental Management Project sites; cleanup of the buildings and soil at the Miamisburg Environmental Management Project. The West Valley Program Goals can be found in the Non-Defense Post 2006 appropriation.

Program Objectives

The Miamisburg Environmental Management Project site will be transferred to the City of Miamisburg for restricted (industrial) use. The Columbus Environmental Management Project site will be returned to Battelle Laboratories for unrestricted use. The Columbus Environmental Management Project will decontaminate buildings at Battelle, including transuranic waste processing and associated equipment removal; and remediate solids from external areas at the site. The West Valley Program Objectives can be found in the Non-Defense Post 2006 appropriation.

^a The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table; as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

Columbus Environmental Management Project

- # Continued shipments of remediation and low-level waste (1,238 m³ FY 1999/ 2,756 m³ FY 2000).
- # Completed external area final survey (FY 1999); complete independent verification of accessible areas at King Avenue (FY 2000).
- # Continued interior decontamination of the West Jefferson building JN-1, including material and equipment removal (FY 1999); continue decontamination of material and equipment (FY 2000).
- # Planned activities for FY 2001 are funded in the Defense Facilities Closure Projects Appropriation.

West Valley Demonstration Project

- # Reflects FY 1999 and FY 2000 accomplishments only, West Valley Project transfers to the Non-Defense Post 2006 appropriation in FY 2001.
- # Developed Vitrification Facility Deactivation Plan (FY 1999).
- # Safely maintained spent nuclear fuel in storage, supporting procedure development, safety concern resolution, annual Safety Analysis Report updates, and training programs (FY 1999/FY 2000).
- # Issued draft Transportation Plan for review and comment and select rail transportation route for spent nuclear fuel shipments (FY 1999); complete training crews for fuel handling and cask unloading at the Idaho National Engineering and Environmental Laboratory (FY 2000).
- # Complete the transition from maintaining safe storage of West Valley Spent Nuclear Fuel to readying the fuel and systems to initiate shipments in FY 2001 to the Idaho National Engineering and Environmental Laboratory (FY 2000).
- # Continued vitrification of tank high-level waste and initiated vitrification of high-level waste tank heels; produced 12 canisters (FY 1999); produce five canisters (FY 2000).

- # Resolve responsibility issues with New York State Energy Research and Development Authority (FY 2000), which was delayed from FY 1999 due to ongoing negotiations between DOE and New York State.
- # Develop preferred alternative for the supplement to the Draft Environmental Impact Statement (FY 2000), which were delayed from FY 1999 due to ongoing negotiations between DOE and New York State.
- # Continued to store disposal-ready high-level waste canisters; added approximately 17 high-level waste canisters to the high-level waste storage facilities inventory (FY 1999/FY 2000).
- # Obtain Nuclear Regulatory Commission approval of general decontamination and decommissioning criteria to support a supplement to the Draft Environmental Impact Statement (FY 2000).

Significant Shifts

The West Valley Demonstration Project is now estimated to be completed in FY 2015 or beyond with a range of total estimated costs from \$3,500,000,000 to \$4,000,000,000, dependent upon the final remediation decision. The current estimated completion date of FY 2015 may be revised to FY 2023 to be consistent with significant project completion decisions regarding extended on-site interim storage of high-level waste canisters. When the Environmental Impact Statement/Record of Decision and decontamination and decommissioning criteria are published, a definitive work scope, cost estimate, and schedule will be developed and validated. The most recent estimates indicates that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure.

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
OH-CL-01 / King Avenue Site Decontamination	1,219	100	0
OH-CL-02 / West Jefferson Site Decontamination	5,750	5,968	0
OH-CL-03 / Project Management, Site Support and Maintenance	1,563	1,197	0
OH-MB-02-N / Main Hill Tritium	1,003	996	0
OH-WV-01 / HLW Vitrification and Tank Heel High Activity Waste Processing	43,800	37,779	0
OH-WV-02 / Site Transition, Decommissioning and Project Completion	30,677	28,100	0
OH-WV-03 / Spent Nuclear Fuel	2,747	7,700	0
OH-WV-04 / Project Management/Site Support	30,000	33,363	0
Total, Ohio	116,759	115,203	0

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Miamisburg Environmental Management Project	1,003	996	0	-996	-100.0%
Columbus Environmental Management Project	8,532	7,293	0	-7,293	-100.0%
West Valley Demonstration Project	107,353	107,353	0	-107,353	-100.0%
Total, Ohio	116,888	115,642	0	-115,642	-100.0%

Metrics Summary

	FY 1999	FY 2000	FY 2001
Remedial Action/Release Site			
Assessments	0	1	0
Cleanups	0	1	0
Facility Decommissioning			
Cleanups	0	1	0
High-Level Waste			
Canisters Produced	12	5	0
Mixed Low-Level Waste			
Treatment (m ³)	2	15	0
Low Level Waste			
Disposal (m ³)	1,010	850	0

Site Description

Columbus Environmental Management Project

The Columbus Environmental Management Project is comprised of two geographic sites (West Jefferson and King Avenue) located in and near Columbus, Ohio. This project consists of 15 facilities and two release sites, of which 11 facilities were completed by the end of FY 1998, including all planned contaminated buildings at the King Avenue site. Decontamination activities were initiated in FY 1998 and should be completed by FY 2005 at the West Jefferson site, at which time it will be returned to the private owner. Research and development work was performed at its facilities for the Department and its predecessors. The 15 affected buildings and grounds are privately owned by Battelle, and the facility retains an active Nuclear Regulatory Commission license for possession of special nuclear material. Both sites are radioactively-contaminated and

funded through both the Defense and Non-Defense appropriation accounts. Beginning in FY 2001, funding for this project has been incorporated into the Defense Facilities Closure account.

Miamisburg Environmental Management Project

The Miamisburg Environmental Management Project manages the Mound Plant which is located on 306 acres in Miamisburg, Ohio, ten miles south of Dayton. The Mound Plant was built in the late 1940's to support research and development, testing, and production activities for the Department's defense nuclear weapons complex and energy research programs. This mission continued until 1994, at which time these activities were transferred to other DOE sites. As a result of these operations, the buildings, soil, and groundwater are contaminated with radioactive and hazardous chemicals. The plant has been placed on the Environmental Protection Agency's National Priority List and a Federal Facility Agreement to effect remediation of the site has been negotiated with the Ohio and the United States Environmental Protection Agencies. The Miamisburg Environmental Management Project cleanup is predominantly funded through the Defense Facilities Closure Projects appropriation account, but also has received some funding from the Non-Defense appropriation account in previous years. The only Non-Defense environmental remediation currently being conducted at the Miamisburg Environmental Management Project is the decontamination of areas within the Semi-Works Cave resulting from radionuclide recovery activities. Beginning in FY 2001, funding for this project has been incorporated into the Defense Facilities Site Closure account.

West Valley Demonstration Project

The West Valley Demonstration Project transfers to Non-Defense Post 2006 appropriation in FY 2001.

The West Valley Demonstration Project is located at the Western New York Nuclear Service Center near West Valley, New York. The Center (operated from 1966 to 1972) was developed by a private company with government support to process commercial spent nuclear fuel to extract plutonium and uranium.

The West Valley Demonstration Project includes all the activities undertaken to carry out high-level waste solidification, including: (1) preparation of the Western New York Nuclear Service Center's premises and facilities to accommodate the solidification project, including decontamination of existing facilities and equipment; (2) removal of the waste from underground storage tanks; (3) development, design, construction, and operation of systems and necessary supporting facilities for the solidification of waste; (4) acquisition of containers for permanent disposal of the solidified waste; (5) temporary storage of the solidified waste, followed by transportation to an appropriate Federal repository for permanent disposal; (6) decontamination and decommissioning of the waste tanks and facilities, material and hardware used in carrying out the solidification of the wastes; and (7) disposal of low-level and transuranic wastes produced from project activities.

The principal operation at West Valley is currently the solidification of approximately 2,200 m³ of liquid high-level waste into borosilicate glass using vitrification. The primary vitrification campaign began in June 1996

and was completed in June 1998. Vitrification of the high-level waste tank heels is underway and will continue through FY 2001.

In preparation for initiating the vitrification program, the entire inventory of liquid high-level waste was pretreated between 1988 and 1995. This processing produced 20,000 drums containing low-level waste liquid stabilized in cement. These drums are being temporarily stored on-site pending a decision on permanent disposal relative to the Record of Decision for project completion.

Following the vitrification of the high-level waste, the buildings and other facilities will be decontaminated and decommissioned, based on the results of an Environmental Impact Statement and Record of Decision for the completion of the project. The project cost is estimated to be in the range of \$3,500,000,000 to \$4,000,000,000, dependent upon the final remediation decision. This estimate will be refined after the Environmental Impact Statement/Record of Decision is published.

Another critical element of the EM program at West Valley is the safe management of 125 spent nuclear fuel elements which are stored at the site. Environmental Management will continue surveillance and maintenance of the spent fuel facility to ensure safe storage until the fuel can be shipped to the Idaho National Engineering and Environmental Laboratory (currently planned for 2001).

Achieving project completion depends upon the Department's ability to implement the decisions made in the Environmental Impact Statement Record of Decision, as well as early identification of receiver sites and stakeholder agreements to accept West Valley Demonstration Project transuranic waste, and funding support. The New York State Energy Research and Development Authority and DOE are formulating a preferred alternative for project completion and closure or long-term management of the site that incorporates stakeholders' input, including the Citizens Task Force's recommendations. Selection of a preferred alternative and subsequent Record of Decision will determine final disposition of the wastes and facilities at the West Valley site and allow for the return of the site to New York State.

Although substantial progress was made in FY 1999 toward development of an Environmental Impact Statement preferred alternative and resolution of responsibility issues with New York State Energy Research and Development Authority, completion of these items is now expected in FY 2000. A revised milestone date for publishing the Environmental Impact Statement Record of Decision is under development.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Ohio projects are managed through incentivized contracts and utilize fixed-price subcontracts to assure the most efficient service to the Government. This scope planned for FY 2001 has been reviewed and is consistent with the goals of the site as outlined in the *Accelerating Cleanup: Path to Closure*. The Ohio projects included in this section of the budget have had external, independent reviews by such organizations as Corps of Engineers, Deloitte and Touche Inc., and Hill International of their baseline scopes and costs. The scope and funding requested for FY 2001 are consistent with the activities that have been reviewed.

OH-CL-01 / King Avenue Site Decontamination

Decontamination of the King Avenue site was completed in FY 2000.

No Activity. Project is complete.

OH-CL-01	1,219	100	0
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Metrics			
Remedial Action/Release Sites			
Assessments	0	1	0
Cleanups	0	1	0
Facility Decommissioning			
Cleanups	0	1	0
Key Milestones			
# Building KA-7 Final Survey Report submitted to independent verification contractor (March 2000).			

OH-CL-02 / West Jefferson Site Decontamination

This project involves facility decommissioning at the West Jefferson site including the Hot Cell area from the retired reactor research facility, which requires quality assurance, waste management, and health and safety support during decommissioning. Upon completion, buildings will be demolished and grounds will be returned to Battelle for reuse without radiological restriction.

Activities for FY 2001 are funded in the Defense Facilities Closure Projects Appropriation.

OH-CL-02	5,750	5,968	0
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Key Milestones		
# Building JN-1 pool refurbishment complete (January 2000).		

OH-CL-03 / Project Management, Site Support and Maintenance

The scope of this project is to provide technical support to the field work involved in the two decontamination projects, (King Avenue and West Jefferson sites), including surveillance and maintenance, project management and regulatory compliance.

Activities for FY 2001 are funded in the Defense Facilities Closure Project Appropriation.

OH-CL-03	1,563	1,197	0
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OH-MB-02-N / Main Hill Tritium

This project provides for the safe shutdown, dismantlement, and decontamination of the Semi-Works Cave area.

Funding for this activity has been incorporated in PBS OH-MB-02 in the Defense Facilities Site Closure account.

OH-MB-02-N	1,003	996	0
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Key Milestones		
# Clean out Semi-Works 22 gloveboxes and dispose of waste (September 2000).		

OH-WV-01 / High-Level Waste Vitrification and Tank Heel High Activity Waste Processing

The high-level waste program at West Valley encompasses the solidification of approximately 2,200 m³ of liquid high-level waste into borosilicate glass using vitrification. Liquid high-level waste vitrification operations were initiated in June 1996, and the primary vitrification campaign was completed in the third quarter of FY 1998.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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This represents a significant achievement for DOE and a critical activity toward completion of the West Valley Demonstration Project . After high-level waste liquid processing, the project continues to use vitrification to process the high-level waste tank heels and residual high activity waste. Planning and preparatory work for tank closure and the cut off of operations for vitrification is underway while vitrification is continuing.

Planned activities are funded in PBS OV-WV-01LT in the Non-Defense Post 2006 appropriation for FY 2001.

OH-WV-01 43,800 37,779 0

Metrics			
High-Level Waste (m ³)			
Storage	109	69	0
Treatment	73	40	0
Key Milestones			
# Vitrify 200,000 curies of Cs-137 and Sr-90 from High-Level Waste Tank 8D-2 (September 2000).			
# Place 244-246 high-level waste canisters into interim storage (September 2000).			
# Determine High-Level Waste Tank 8D-2 radionuclide inventory (September 2000).			

OH-WV-02 / Site Transition, Decommissioning, and Project Completion

These activities are required to remove high-level waste canisters and transuranic waste from project facilities. The activities are also required to dispose of low-level waste in accordance with the West Valley Demonstration Project Act and the Stipulation of Compromise as directed by the Record of Decision, implementation of other related activities associated with the Record of Decision, and completion of the remaining project responsibilities and return the site to New York State.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The State of New York and DOE are working together to formulate a preferred alternative with input from the public, including the Citizens Task Force. The subsequent Record of Decision will provide the decision to implement the preferred alternative. Outyear work scope has been revised to include modifications to existing canister storage location in the main process building or investigation of other storage options. These activities run concurrently with high-level waste vitrification processing and tank residual high activity waste processing with estimated completion through FY 2015 or beyond dependent upon Environmental Impact Statement/Record of Decision alternative selected and funding support.

Planned activities are funded in PBS OH-WV-02LT in the Non-Defense Post 2006 appropriation for FY 2001.

OH-WV-02 30,677 28,100 0

Metrics			
High-Level Waste (cn)			
Canisters Produced	12	5	0
Low-Level Waste (m ³)			
Commercial Disposal (m ³)	1,010	850	0
Storage	16,303	16,381	0
Mixed Low-Level Waste (m ³)			
Storage	146	150	0
Treatment	2	15	0
Transuranic Waste (m ³)			
Storage	539	543	0
Key Milestones			
# Arrive at a Preferred Alternative for Project Completion / Site Closure (April 2000).			
# Size reduce five to eight pieces of Vitrification Expended Material (June 2000).			
# Ship 30,000 cubic feet of low-level waste off-site for disposal (September 2000).			
# Complete preliminary design for the Remote Handled Waste Facility (September 2000).			

OH-WV-03 / Spent Nuclear Fuel

Environmental Management/Non-Defense
Environmental Management/Site Closure/
Ohio

FY 2001 Congressional Request

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Fuel Receiving and Storage Facility at West Valley contains 125 irradiated commercial spent nuclear fuel elements that must be transferred off-site during calendar year 2001 (per agreement with the State of Idaho and the State of New York). Initiate shipment to Idaho National Engineering and Environmental Laboratory in FY 2001 to avoid penalties and court action by New York State regulators.

Planned activities are funded in PBS OH-WV-03LT in the Non-Defense Post 2006 appropriation for FY 2001.

OH-WV-03	2,747	7,700	0
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Key Milestones

Submit Safety Analysis Report for Packaging of spent nuclear fuel to Nuclear Regulatory Commission (March 2000).

OH-WV-04 / Project Management/Site Support

This project provides for management of basic facilities, equipment, installations, and related services essential for occupation and operation of the site. This includes roads, utilities, environmental monitoring, analytical laboratories, safeguards and security, offices, warehouses, corrective maintenance, and preventive maintenance. It also includes technical support and contract expertise in evaluating waste management activities. It includes activities related to strategic planning, information activities, and field management. Also included are preparation of project baseline summaries, risk data sheet documentation, integrated priority lists, site-wide technical baselines, facility plans, system engineering, and complex-wide plans.

Planned activities in this PBS have been distributed to the three mission related PBS in the Non-Defense Post 2006 appropriation for FY 2001.

OH-WV-04	30,000	33,363	0
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(dollars in thousands)

	FY 1999	FY 2000	FY 2001
Total, Ohio	116,759	115,203	0

Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

OH-CL-01 / King Avenue Site Decontamination

No activity, project complete -100

OH-CL-02 / West Jefferson Site Decontamination

The FY 2001 planned activities are funded in the Defense Facilities Closure Projects appropriation, OH-CL-02-D at \$12,934,000. This is levelized funding for the project. ... -5,968

OH-CL-03 / Project Management, Site Support and Maintenance

The FY 2001 planned activities are funded in the Defense Facilities Closure Projects appropriation, OH-CL-03-D at \$3,200,000. This is levelized funding for the project.. -1,197

OH-MB-02-N / Main Hill Tritium

The FY 2001 planned activities are funded in the Defense Facilities Closure Projects appropriation, OH-MB-02 at \$33,768. This is levelized funding for the project. -996

OH-WV-01 / High Level Waste Vitrification and Tank Heel High Activity Waste Processing

The FY 2001 planned activities are funded in the Non-Defense Post 2006 appropriation, OH-WV-01LT at \$54,000,000. -37,779

OH-WV-02 / Site Transition, Decommissioning and Project Completion

The FY 2001 planned activities are funded in the Non-Defense Post 2006 appropriation, OH-WV-02LT at \$46,153,000. -28,100

OH-WV-03 / Spent Nuclear Fuel

The FY 2001 planned activities are funded in the Non-Defense Post 2006 appropriation, OH-WV-03LT at \$7,200,000. -7,700

OH-WV-04 / Project Management/Site Support

The planned activities in this PBS have been distributed to the three mission-related PBSs in the Non-Defense Post 2006 Completion appropriation. This will improve planning and budget data collection and better reconcile costs per generally accepted accounting principles and cost accounting standards. -33,363

FY 2001 vs. FY 2000 (\$000)

Total Funding Change, Ohio

-115,203

Site/Project Completion

Program Mission

The Non-Defense Site/Project Completion account provides funding for projects that are expected to be completed by FY 2006 at sites or facilities where a Department of Energy (DOE) mission will continue (e.g., environmental management or scientific research) beyond FY 2006. Hence, this account focuses on the completion of specific Environmental Management (EM) projects at sites with expected enduring missions.

This account includes projects and sites under the following Operations Offices: Albuquerque, Chicago, Idaho, Oakland, and Richland. 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 Goal

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. For those sites funded within the Site/Project Completion account, the goal of the EM program is to complete as many projects as possible by 2006. The FY 2001 request continues to support this goal.

Program Objective

- # Manage environmental cleanup projects for which EM has established the goal of completion by 2006 at EM sites where overall site cleanup will not be fully accomplished by 2006.
- # 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, and the necessary waste management activities to handle newly generated wastes from these missions.

Performance Measures

Environmental Management prepares a performance-based budget that demonstrates the program and project results expected for the resources requested. Environmental Management program performance measures can be found in the site details that follow this overview section.

Significant Accomplishments and Program Shifts

The FY 2001 request reflects EM's project-oriented structure as a key component of the effort to accelerate cleanup and reduce costs. All EM activities have been organized into projects which have a defined scope, schedule, cost, and end state. Specific accomplishments and program shifts may be found in the site details that follow this overview.

Funding Profile

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Original Appropriation	FY 2000 Adjustments	FY 2000 Current Appropriation	FY 2001 Request
Site/Project Completion	101,174	97,750	-365	97,385	64,921
Subtotal, Non-Defense Site/Project Completion	101,174	97,750	-365	97,385	64,921
Contractor Travel Savings	0	0	0	0	-200
Total, Non-Defense Site/Project Completion	101,174	97,750	-365 ^a	97,385	64,721

Public Law Authorization:

Public Law 106-60, "The Energy and Water Development Appropriations Act, 2000"

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

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

^a Reflects congressional rescission.

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Albuquerque Operations Office	499	537	10,562	10,025	1866.9%
Chicago Operations Office	53,922	53,702	37,913	-15,789	-29.4%
Idaho Operations Office	9,983	6,393	1,856	-4,537	-71.0%
Oakland Operations Office	34,911	35,042	13,090	-21,952	-62.6%
Richland Operations Office	1,859	1,394	1,500	106	7.6%
Headquarters	0	317	0	-317	-100.0%
Subtotal, Non-Defense Site/Project Completion	101,174	97,385	64,921	-32,464	-33.3%
Contractor Travel Savings	0	0	-200	-200	>999.9%
Total, Non-Defense Site/Project Completion	101,174	97,385	64,721	-32,664	-33.5%

Albuquerque

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management (EM) Site/Project Completion program, managed through the Albuquerque Operations Office, is to support activities at two sites in two states, the Lovelace Respiratory Research Institute, formerly the Lovelace Biomedical and Environmental Research Institute, in New Mexico, and the Atlas Corporation uranium mill site at Moab, Utah.

Program Goal

The Albuquerque Operations Office Environmental Management Program, through a cooperative agreement, supports treatment, storage, and disposal of wastes generated from the Department's mission-related work at the Lovelace Respiratory Research Institute. The Office of Science, the landlord, is considering integrating waste management activities into the landlord program.

The Albuquerque Operations Office's Environmental Management Program, subject to the enactment of new Congressional authority, would clean up the Atlas Moab Site and relocate the uranium mill tailings to a site away from the Colorado River.

Program Objective

Until the transition of the Lovelace Respiratory Research Institute to the landlord occurs, the Albuquerque program objective is to: manage generated waste, including the treatment, storage, and disposal of low-level waste, mixed low-level waste, transuranic, and hazardous wastes; support program management activities for the waste management/environmental restoration programs; and continue groundwater surveillance and monitoring. The site currently operates under a cooperative agreement with the Department of Energy to conduct biomedical research. It is assumed that the cooperative agreement will remain in place until FY 2006.

By cleaning up the Atlas Site in Moab, Utah, the DOE Albuquerque Operations Office will alleviate the concerns of stakeholders from the State of Utah and other states downstream on the Colorado River about the risk of contamination from this site.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table, as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

- # Shipped small quantities of transuranic waste to Sandia National Laboratory for interim storage pending regulatory changes that would permit disposal at the Waste Isolation Pilot Plant (FY 1999).
- # Continue monitoring groundwater (FY 2000).
- # Continue compliant treatment, storage, and disposal of waste (FY 2000).

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
AL-005 / Lovelace Respiratory Research Institute	499	537	562
AL-034 / Atlas Site	0	0	10,000
Total, Albuquerque	499	537	10,562

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Lovelace Respiratory Research Institute (NM)	499	537	562	25	4.7%
Atlas Site (UT)	0	0	10,000	10,000	>999.9%
Total, Albuquerque	499	537	10,562	10,025	1866.9%

Metrics Summary

	FY 1999	FY 2000	FY 2001
Mixed Low-Level Waste Disposal (m ³)	0	0	1

Site Description

Lovelace Respiratory Research Institute

The Lovelace Respiratory Research Institute is located on Kirtland Air Force Base in Albuquerque, New Mexico. The site currently operates under a cooperative agreement with the Department of Energy to conduct biomedical research. All of the environmental restoration sites have been cleaned up. Monitoring and surveillance of the sites continue to support closure and to monitor the reduction of nitrates in groundwater beneath the former wastewater lagoons. The Environmental Management Program manages hazardous, low-level radioactive, mixed, transuranic, and non-hazardous biomedical wastes generated from on-going DOE research activities in an efficient and environmentally sound manner.

Atlas Site

The Atlas Moab Site is a Title II site as currently authorized by the Uranium Mill Tailings Radiation Control Act, i.e., the Atlas Corporation was responsible for cleanup of the site. In late 1998, the Atlas Corporation declared bankruptcy. The Nuclear Regulatory Commission appointed a trustee, Pricewaterhouse Cooper, in December 1999. The site and most of the assets associated with the site are being transferred to the trustee, and currently the trustee has the responsibility for site cleanup. On January 14, 2000, the Secretary of Energy proposed that Congress provide authority for the Department of Energy to clean up the site under Title I of the Uranium Mill Tailings Radiation Control Act and relocate the tailings to a site away from the Colorado River.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Albuquerque Site is managed through a performance based management and operating contract to assure the most cost-effective services to the government. The scope planned for FY 2001 has been reviewed and is appropriate to meet the goals of the sites as outlined in the Accelerating Cleanup: Paths to Closure. The funds requested for FY 2001 are appropriate based on historical costs for similar work.

AL-005 / Lovelace Respiratory Research Institute

This project provides compliant waste management for biomedical research waste and environmental restoration groundwater monitoring and surveillance.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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- # FY 2001 activities include monitoring of former environmental restoration sites and includes primarily groundwater sampling.
- # Waste management continues to manage DOE generated waste as long as a DOE mission continues to exist under the Cooperative Agreement.

AL-005 499 537 562

Metrics	FY 1999	FY 2000	FY 2001
Mixed Low-Level Waste			
Commercial Disposal (m ³)	0	0	1
Low-Level Waste			
Storage (m ³)	19	60	60
Shipped to DOE Disposal Site (m ³)	0	31	31
Hazardous Waste			
Commercial Disposal (MT)	10	4	4
Key Milestones			
# Dispose of excess/old chemical as hazardous waste (September 2000).			
# Groundwater monitoring reports (September 2000).			
# Surveillance and monitoring (September 2000).			
# Make low-level radioactive waste shipment to the Nevada Test Site (September 2000).			
# Make low-level radioactive waste shipment to the Nevada Test Site (September 2001).			
# Dispose of excess/old chemicals as hazardous waste (September 2001).			
# Surveillance and monitoring (September 2001).			
# Groundwater monitoring reports (September 2001).			

AL-034 / Atlas Site

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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This project would relocate the Atlas tailings pile at Moab, Utah, to a more remote location and remediate the mill site to Uranium Mill Tailings Radiation Control Act standards. Initial activities are groundwater characterization and restoration, assess extent of contamination around the pile, stabilize stream and river banks, assess nature and extent of groundwater at the disposal site, and geotechnical characterization of construction materials. A disposal cell, material transport system will be designed and a Corrective Action Plan for groundwater restoration prepared. After regulatory approval, construction activities will be initiated. This activity is contingent upon the enactment of congressional authority to transfer cleanup responsibility to the Department of Energy.

AL-034	0	0	10,000
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Key Milestones			
#	Initiate groundwater interim remedial action (September 2001).		
#	Initiate disposal cell design (September 2001).		

Total, Albuquerque	499	537	10,562
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Explanation of Funding Changes from FY 2000 to FY 2001

	FY 2001 vs. FY 2000 (\$000)
AL-005 / Lovelace Respiratory Research Institute	
# No significant change.	25
AL-034 / Atlas Site	
# Fund the Atlas Site in Moab, Utah	10,000
Total Funding Change, Albuquerque	10,025

Chicago

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management (EM) Site/Project Completion program carried out by the Chicago Operations Office, is to direct and manage EM activities at the following sites: Ames Laboratory in Iowa; the Argonne National Laboratory-East in Illinois; the Argonne National Laboratory-West in Idaho; Princeton Plasma Physics Laboratory in New Jersey; and the Brookhaven National Laboratory in New York.

The primary mission of the facilities under the Chicago Operations Office is research, development, and demonstration for DOE's Office of Science and Nuclear Energy programs. This includes energy research and development; basic and applied research on the fundamental properties of matter, physics, life and environmental sciences; magnetic confinement fusion and high-energy physics. The primary component of the Chicago Environmental Management Program in FY 2001 is environmental restoration. Environmental restoration activities managed by the Chicago Operations Office include the management of groundwater, soil and debris contaminated with radionuclides and/or hazardous substances.

The Chicago environmental restoration strategy focuses on maximizing near-term site completions, optimizing the sequencing of work and accelerating schedules. This strategy has proven to be successful in that environmental restoration activities at former Chicago sites, such as Site A/Plot M in Illinois, have been completed, allowing allocated funding to be devoted to fewer remaining sites.

Waste management responsibilities for newly generated waste, formerly managed under the Environmental Management Program, were transferred in FY 1998 to the Office of Science for Fermi National Accelerator Laboratory, and to the Office of Nuclear Energy for Argonne National Laboratory-West. Newly generated waste management responsibilities for remaining sites, Ames, Argonne National Laboratory-East, Brookhaven National Laboratory, and the Princeton Plasma Physics Laboratory will be transferred to the Office of Science in FY 2001. Management and funding for surveillance and maintenance at Site A/Plot M, the Hallam site in Nebraska, and the Piqua site in Ohio were transferred to the Long Term Surveillance and Maintenance program, which is managed by the Grand Junction Project Office in Colorado. Management for surveillance and monitoring of the Princeton Plasma Physics Laboratory Site C/D will be transferred to the Office of Science in FY 2001.

Program Goal

The goal of the Chicago Operations Office and the EM program is to complete remediation of all currently baselined scope for Chicago managed sites by FY 2006, and to transfer management of all newly-generated waste from ongoing operations back to the generator by FY 2001.

Program Objectives

The EM objective at the Chicago Operations Office is to manage the risks associated with sites contaminated with various hazardous and radioactive materials. This includes responsibility for the assessment and remediation of contaminated sites and facilities; development, demonstration, testing, and evaluation of new cleanup technologies; environmental safety; and completion of decontamination and decommissioning of surplus facilities in the current EM baseline. The Chicago Operations Office proactively employs innovative and alternative technologies, wherever appropriate and applicable, to address remedial, as well as decontamination and decommissioning problems, in order to reduce cost, risk, and to improve the schedule.

Environmental restoration activities at Chicago were completed at all sites except Argonne National Laboratory-East, Argonne National Laboratory-West and Brookhaven National Laboratory by the end of FY 1999. Remediation activities will continue under the Brookhaven National Laboratory Interagency Agreement/Federal Facilities Agreement, the Argonne National Laboratory-West Federal Facility Agreement/Consent Order and the Argonne National Laboratory-East Resource Conservation and Recovery Act Part B Corrective Action permit.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table, as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

- # At Brookhaven National Laboratory, site-wide characterization activities were completed and Graphite Reactor characterization activities were undertaken. Remedial actions included continuation of remediation of operable units/removal actions including the Central Steam Facility, waste management areas, and the groundwater. Packaging, transportation, and off-site processing of boneyard waste removals at the old Hazardous Waste Management Facility continued. Completed construction and began operation of innovative technology, in-well air sparging system for off-site groundwater remediation to provide a

substantially less invasive presence off-site and reduce life cycle operations and maintenance costs as compared to pump and treat technology (FY 1999).

- # At Brookhaven National Laboratory, continue on-site and off-site groundwater treatment systems and soil vapor extraction systems; conduct remedial design and remedial action for additional groundwater, soil, and sediment remediation; treat and dispose of additional legacy waste. Continue characterization and begin field work, including Pile Fan Sump and aboveground duct removal, for Graphite Reactor decommissioning. Additional use of innovative technologies at Brookhaven National Laboratory include thermal desorption for treatment of mercury, the use of viscous liquid barrier, and the systems to sense and characterize radionuclides in soils (FY 2000).
- # At Brookhaven National Laboratory, continue on-site and off-site groundwater treatment systems and soil vapor extraction systems; conduct remedial design and remedial action for additional groundwater, soil, and sediment remediation; treat and dispose of most remaining legacy waste. Continue characterization, and aboveground duct and below ground piping removal for Graphite Reactor decommissioning (FY 2001).
- # At Argonne National Laboratory-East, remedial actions continued. Continued decontamination and decommissioning of the Chicago Pile-5 Reactor including removal of the biological shield (FY 1999).
- # At Argonne National Laboratory-East, continue remedial actions including capping in place and engineered barriers; complete decontamination and decommissioning of the Chicago Pile-5 Reactor; initiate decontamination and decommissioning of the 60-inch Cyclotron Reactor (FY 2000).
- # At Argonne National Laboratory-East, corrective actions will continue with the 319 Area Landfill release site being completed. Field work on the 317 Area Vaults will begin. Lime sludge removal and operation and maintenance activities will also continue. Complete decontamination and decommissioning of the 60-inch Cyclotron Reactor. Initiate field work on the following decontamination and decommissioning activities: Building 310 Retention Tank Facility, Juggernaut Reactor, and the Zero Power Reactors 6 and 9 project (FY 2001).
- # At Argonne National Laboratory-West, the two year validation of innovative technology (phytoremediation) for the Waste Area Group 9 site began (FY 1999). Continue final remedial action (phytoremediation) (FY 2000). Continue operation and maintenance activities. The FY 2000 draft summary report of phytoremediation results for the first two years will be prepared and submitted to the regulators for approval (FY 2001).
- # At the Princeton Plasma Physics Laboratory Site C/D, remediation activities (other than continued surveillance and monitoring) have been completed (FY 1999); continue surveillance and monitoring (FY 2000).
- # Management for continued surveillance and monitoring of the Princeton Plasma Physics Laboratory Site C/D will be transferred to the Office of Science in FY 2001.
- # Potentially responsible party payments will be made against DOE's portion of Princeton University Site A/B remediation costs as a Potentially Responsible Party (FY 1999/FY 2000/FY 2001).

- # At Ames, remediation activities (other than continued low levels of surveillance and monitoring) have been completed. In FY 1999, DOE made a one-time payment of \$50,000 in the form of a grant to Iowa State University for a portion of the costs of annual groundwater monitoring through April 30, 2003 (FY 1999).
- # Performed all necessary activities to compliantly treat, store, and dispose of all applicable waste types at Ames, Argonne National Laboratory-East, Brookhaven National Laboratory, and the Princeton Plasma Physics Laboratory (FY 1999), and will continue to perform activities (FY 2000).
- # Waste management activities at four remaining sites, Ames, Argonne National Laboratory-East, Brookhaven National Laboratory, and Princeton Plasma Physics Laboratory, will be transferred to the Office of Science in FY 2001.

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
CH-AMESWO / AMES Waste Operations	254	260	0
CH-ANLEDD / Argonne National Laboratory-East Decontamination and Decommissioning Actions	6,979	6,614	5,298
CH-ANLEPM / Argonne National Laboratory-East Program Management	479	652	574
CH-ANLERA / Argonne National Laboratory-East Remedial Actions	3,977	4,796	3,692
CH-ANLEWO / Argonne National Laboratory-East Waste Operations	7,574	7,647	0
CH-ANLWRA / Argonne National Laboratory-West Remedial Actions	1,177	805	611
CH-BRNLBYW / Brookhaven National Laboratory Boneyard Waste	1,635	3,076	3,609
CH-BRNLDD / Brookhaven National Laboratory Decontamination and Decommissioning	3,020	130	5,081
CH-BRNLPM / Brookhaven National Laboratory Program Management	3,029	3,003	3,567
CH-BRNLRA / Brookhaven National Laboratory Remedial Actions	15,522	15,867	14,976
CH-BRNLWO / Brookhaven National Laboratory Waste Operations	6,814	6,363	0
CH-CHOOPUAB / Princeton Site A/B Payments	157	955	505
CH-COPS / Chicago Operations Program Support	162	500	0
CH-PPPLRA / Princeton Plasma Physics Laboratory Remedial Actions	343	260	0
CH-PPPLWO / Princeton Plasma Physics Laboratory Waste Operations	2,800	2,774	0
Total, Chicago	53,922	53,702	37,913

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
AMES Laboratory (Iowa State University) (IA)	254	260	0	-260	-100.0%
Argonne National Laboratory-East (IL)	19,009	19,709	9,564	-10,145	-51.5%
Argonne National Laboratory-West (ID)	1,177	805	611	-194	-24.1%
Brookhaven National Laboratory (NY)	30,020	28,439	27,233	-1,206	-4.2%
Chicago Operations Office (IL)	319	1,455	505	-950	0.0%
Princeton Plasma Physics Laboratory (NJ)	3,143	3,034	0	-3,034	-100.0%
Total, Chicago	53,922	53,702	37,913	-15,789	-29.4%

Metrics Summary

	FY 1999	FY 2000	FY 2001
Remedial Action/Release Sites			
Assessments	13	5	6
Cleanups	9	10	12
Facility Decommissioning			
Assessments	1	2	10
Cleanups	1	9	5
Mixed Low-Level Waste			
Treatment (m ³)	11	14	0
Commercial Disposal (m ³)	6	32	0
Low-Level Waste			
Commercial Disposal (m ³)	220	12	0

Site Description

AMES Laboratory (Iowa State University)

Ames Laboratory is an Office of Science laboratory in Ames, Iowa that conducts basic and applied research in the preparation, characterization, and evaluation of properties of metals and their alloys, especially rare earth metals. Ames Laboratory also performs materials research, high-performance computing, and environmental research. It seeks solutions to energy-related problems through the exploration of physics, chemistry, engineering, applied mathematics, and materials sciences.

Argonne National Laboratory-East

Argonne National Laboratory-East is a research laboratory occupying a 700 acre tract of land located approximately 22 miles southwest of downtown Chicago in DuPage County, Illinois. It is an Office of Science multidisciplinary research and development laboratory that conducts basic and applied research to support the development of energy-related technologies. Energy-related research projects include safety studies for light-water reactors, developing components and materials for fission and fusion reactors, superconductivity research, improvements in coal power, synchrotron radiation sources, and waste heat utilization. Further research includes medical radioisotope technology, environmental research, genetics research, materials engineering, ceramics, carcinogenesis, and the biological effects of ionizing radiation. Argonne-East is the home for the Advanced Photon Source Facility, which provides experiment capability with the use of photons for industry, government, and academic scientists to create advances in pharmaceuticals, adhesives, food processing, and many other applications.

Argonne National Laboratory-West

The Argonne National Laboratory-West site is located 35 miles west of Idaho Falls, Idaho, and is operated by the University of Chicago under the direction of the Chicago Operations Office. The site was constructed for the purpose of carrying out research and development for liquid metal fast breeder reactor technology. The current mission for Argonne National Laboratory-West includes technology development for spent nuclear fuel and radioactive waste treatment, and reactor and fuel cycle safety. These activities are administered through the Office of Nuclear Energy.

Brookhaven National Laboratory

The Brookhaven National Laboratory site is an Office of Science multi-purpose research and development laboratory located in central Suffolk County on Long Island, about 60 miles east of New York City. Brookhaven National Laboratory's current mission is to conduct fundamental research, including conception, design, construction, and operation of large complex research facilities. These facilities are used for both basic and applied research in high energy and nuclear physics; in basic energy sciences emphasizing fundamental research on biological, chemical, and physical phenomena underlying energy-related transfer, conversion and storage systems; in life sciences; and in nuclear medical applications of nuclear techniques.

Princeton Plasma Physics Laboratory

The Princeton Plasma Physics Laboratory in Princeton, New Jersey, is an Office of Science single purpose laboratory focusing on research and development for fusion energy programs. The Laboratory is engaged in a broad spectrum of plasma physics research ranging from the theoretical analysis and modeling of fusion plasmas

to the laboratory testing of plasmas approaching the conditions necessary for an energy producing fusion reactor.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Chicago EM program makes extensive use of firm fixed-price management and integration subcontracts and other subcontracting mechanisms, such as basic ordering agreements and time and material subcontracts, to assure the most cost-effective services to the government.

The scope planned for FY 2001 has been reviewed and is appropriate to meet the goals of the sites as outlined in *Accelerating Cleanup: Paths to Closure*. The two major environmental restoration programs at Argonne National Laboratory-East and Brookhaven National Laboratory have had independent cost, scope and schedule reviews by the Army Corps of Engineers and are baselined and under formal change control procedures. Waste management activities will be transferred to the Office of Science in FY 2001, as well as surveillance and monitoring of the Princeton Plasma Physics Laboratory Site C/D.

CH-AMESWO / AMES Waste Operations

This project performs all necessary activities to safely and compliantly store, treat, and dispose of waste in quantities as provided in the metrics table below. These activities will be transferred to the Office of Science in FY 2001.

CH-AMESWO	254	260	0
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Metrics			
Mixed Low-Level Waste			
Storage (m ³)	0.0	1.0	0.0
Commercial Disposal (m ³)	0.0	1.0	0.0
Low-Level Waste			
Treatment (m ³)	2.0	1.0	0.0
Shipped to DOE Disposal Site (m ³)	2.0	5.0	0.0

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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**CH-ANLEDD / Argonne National Laboratory-East
Decontamination and Decommissioning Actions**

This project conducts facility decontamination and decommissioning activities.

- # The 60-inch Cyclotron project will be completed.
- # Field work will begin on the following projects: 1) Building 310 Retention Tank Facility, and 2) the Juggernaut Reactor.
- # Field work will begin on the Zero Power Reactors 6 and 9 project - experimental reactors utilized for reactor physics studies.

CH-ANLEDD 6,979 6,614 5,298

Metrics			
Facility Decommissioning			
Assessments	0	1	9
Cleanups	1	8	4
Key Milestones			
# CP-5 Decontamination and Decommissioning Project Final Report is complete (July 2000).			

**CH-ANLEPM / Argonne National Laboratory-East Program
Management**

This project provides program management support activities to provide a safe and effective environmental management program to reduce environmental and health risks, including support of compliance, quality, safety and health, project technical support including technology application, sample and data management, design support, and project and program support.

- # Continue to support the Argonne National Laboratory-East Remedial Action and Decontamination/Decommissioning programs, including cost and schedule planning and reporting; stakeholder and regulatory interactions; budget preparation; and data calls.

CH-ANLEPM 479 652 574

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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CH-ANLERA / Argonne National Laboratory-East Remedial Actions

This project conducts remediation activities at Argonne National Laboratory-East to reduce risk and comply with the Resource Conservation and Recovery Act permit.

Corrective actions will continue with the 319 Area Landfill release site being completed. Field work on 317 Area Vaults will begin. Lime sludge removal and operation and maintenance activities will also continue.

CH-ANLERA	3,977	4,796	3,692
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Metrics			
Remedial Actions/Release Sites			
Assessments	2	5	6
Cleanups	7	9	6

CH-ANLEWO / Argonne National Laboratory-East Waste Operations

This project performs all necessary activities to safely and compliantly store, treat, and dispose of waste in quantities as provided in the metrics table below. These activities will be transferred to the Office of Science in FY 2001.

CH-ANLEWO	7,574	7,647	0
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics			
Transuranic Waste			
Storage (m ³)	91.0	93.0	0.0
Treatment (m ³)	2.0	85.0	0.0
Mixed Low-Level Waste			
Storage (m ³)	176.0	133.0	0.0
Treatment (m ³)	10.0	11.0	0.0
Commercial Disposal (m ³)	2.0	19.0	0.0
Low-Level Waste			
Storage (m ³)	208.0	120.0	0.0
Treatment (m ³)	278.0	302.0	0.0
Shipped to DOE Disposal Site (m ³)	156.0	196.0	0.0

CH-ANLWRA / Argonne National Laboratory-West Remedial Actions

This project conducts activities at the Argonne National Laboratory-West Waste Area Group 9 to assess and reduce risk and comply with the Federal Facilities Agreement/Consent Order.

All remediation activities have been completed except for additional operation and maintenance activities (phytoremediation tasks of planting and harvesting). The FY 2000 draft summary report of phytoremediation results for the first two years will be submitted to the regulators for approval.

CH-ANLWRA	1,177	805	611
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Metrics			
Remedial Actions/Release Sites			
Cleanups	0	0	4
Key Milestones			
# Draft final remediation design sent to the Environmental Protection Agency/Idaho Department of Health and Welfare (October 1999).			

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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CH-BRNLBYW / Brookhaven National Laboratory Boneyard Waste

This project treats and disposes of legacy wastes at the old Hazardous Waste Management Area, such as bin sludges, connex and concrete containers, dry active wastes, and shielding blocks/debris. Wastes must be disposed before soil remediation in this area can begin.

- # Dispose of most remaining legacy wastes including major pieces, steel, transport pigs, and concrete containers.

CH-BRNLBYW	1,635	3,076	3,609
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Metrics			
This project has associated metrics; however, no metrics are reportable in the 3-year budget profile.			
Key Milestones			
# Award major procurement (March 2000).			
# Complete Boneyard waste removal (March 2001).			

CH-BRNLDD / Brookhaven National Laboratory Decontamination and Decommissioning Actions

This project characterizes, stabilizes, remediates, decontaminates and decommissions the Brookhaven Graphite Research Reactor.

- # Brookhaven Graphite Research Reactor systems decommissioning will continue throughout the fiscal year. Continue characterization and aboveground duct and below ground piping removal.
- # Engineering/alternative selection work will continue.

CH-BRNLDD	3,020	130	5,081
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Metrics			
Facility Decommissioning			
Assessments	0	1	1
Cleanups	0	1	1
Key Milestones			
# Deliver Draft Alternative Analysis Report to DOE (April 2000).			

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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CH-BRNLPM / Brookhaven National Laboratory Program Management

This project provides program management support activities to provide a safe and effective environmental management program to reduce environmental and health risks, including: support of compliance, quality, safety and health; project technical support including technology application, sample and data management; design support; and project and program support. It also includes funding for an Interagency Agreement with New York State Department of Environmental Conservation for oversight.

Programmatic supervision and support for Interagency Agreement activities will continue to be provided, including: cost and schedule control, project integration and performance, community relations, regulatory actions, and engineering support.

CH-BRNLPM	3,029	3,003	3,567
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CH-BRNLRA / Brookhaven National Laboratory Remedial Actions

This project addresses areas with known or potential risk to human health and the environment under the DOE/Environmental Protection Agency/New York State Department of Environmental Conservation Resource Conservation and Recovery Act/Comprehensive Environmental Response, Compensation and Liability Act Interagency Agreement.

Continue on-site and off-site groundwater treatment systems and soil vapor extraction systems; conduct remedial design and remedial action for additional groundwater, soil, and sediment remediation.

CH-BRNLRA	15,522	15,867	14,976
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Metrics			
Remedial Actions/Release Sites			
Assessments	11	0	0
Cleanups	2	1	2
Facility Decommissioning			
Assessments	1	0	0

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Key Milestones		
#	Construction complete Building 96 Air Sparging/Soil Vapor Extraction System (September 2000).	

CH-BRNLWO / Brookhaven National Laboratory Waste Operations

This project performs all necessary activities to safely and compliantly store, treat, and dispose of waste in quantities as provided in the metrics table below. These activities will be transferred to the Office of Science in FY 2001.

CH-BRNLWO	6,814	6,363	0
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Metrics			
Mixed Low-Level Waste			
Storage (m ³)	9.0	6.0	0.0
Treatment (m ³)	1.0	1.0	0.0
Commercial Disposal (m ³)	4.0	11.0	0.0
Low-Level Waste			
Storage (m ³)	43.0	0.0	0.0
Treatment (m ³)	172.0	110.0	0.0
Commercial Disposal (m ³)	220.0	12.0	0.0
Shipped to DOE Disposal Site (m ³)	28.0	87.0	0.0

CH-CHOOPUAB / Princeton Site A/B Payments

Potentially responsible party payments are required to cover DOE's responsibility, as a previous lessee, for a portion of the characterization/remediation costs for Princeton University's Site A/B, in accordance with the New Jersey Department of Environmental Protection/Princeton University Memorandum of Understanding and DOE/Princeton University Memorandum of Agreement.

Payment of DOE's yearly portion, as a Potentially Responsible Party, of characterization and remediation costs.

CH-CHOOPUAB	157	955	505
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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CH-COPS / Chicago Operations Program Support

This program support activity, originally supported both Chicago and the National Environmental Management Mission. Activities are now planned in other Program Baseline Summaries.

No effort is planned in the PBS for FY 2001.

CH-COPS	162	500	0
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CH-PPPLRA / Princeton Plasma Physics Laboratory Remedial Actions

This project conducts activities to assess and reduce risk at the Princeton Plasma Physics Laboratory Site C/D. Continuing surveillance and monitoring activities for Site C/D will be transferred to the Office of Science in FY 2001.

CH-PPPLRA	343	260	0
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Metrics This project has associated metrics; however, no metrics are reportable in the 3-year budget profile.
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CH-PPPLWO / Princeton Plasma Physics Laboratory Waste Operations

This project performs all necessary activities to safely and compliantly store, treat, and dispose of waste in quantities as provided in the metrics table below. These activities will be transferred to the Office of Science in FY 2001.

CH-PPPLWO	2,800	2,774	0
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Metrics			
Mixed Low-Level Waste			
Treatment (m ³)	0.0	2.0	0.0
Commercial Disposal (m ³)	0.0	1.0	0.0
Low-Level Waste			
Treatment (m ³)	87.0	101.0	0.0
Shipped to DOE Disposal Site (m ³)	34.0	103.0	0.0

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
Total, Chicago	53,922	53,702	37,913

Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

CH-AMESWO / Ames Waste Operations

Decrease is due to the transfer of these activities to the Office of Science in FY 2001 -260

CH-ANLEDD / Argonne National Laboratory-East Decontamination and Decommissioning Actions

Decrease is due to completion of decontamination and decommissioning activities for the Chicago Pile-5 Reactor (in FY 2000) and the 60-inch Cyclotron project (in first quarter of FY 2001) -1,316

CH-ANLEPM / Argonne National Laboratory-East Program Management

Decrease is due to the completion of two major decommissioning projects -78

FY 2001 vs. FY 2000 (\$000)

CH-ANLERA / Argonne National Laboratory-East Remedial Actions	
# Decrease is due to the completion of additional corrective actions	-1,104
CH-ANLEWO / Argonne National Laboratory-East Waste Operations	
# Decrease is due to the transfer of these activities to the Office of Science in FY 2001	-7,647
CH-ANLWRA / Argonne National Laboratory-West Remedial Actions	
# Decrease is due to completion of remedial activities, except for operation and maintenance, needed to implement the final remedy	-194
CH-BRNLBYW / Brookhaven National Laboratory Boneyard Waste	
# Amount is increased to remove and dispose of most remaining legacy waste	533
CH-BRNLDD / Brookhaven National Laboratory Decontamination and Decommissioning Actions	
# Increase is due to the continuation of the Brookhaven Graphite Research Reactor systems decommissioning. In FY 2000, the Office of Science provided funding for this project in addition to the EM funding	4,951
CH-BRNLPM / Brookhaven National Laboratory Program Management	
# Increase is to support overall increased activity in decommissioning and legacy waste	564
CH-BRNLRA / Brookhaven National Laboratory Remedial Actions	
# Decrease is due to additional emphasis on decommissioning and legacy waste removal activities for FY 2001 in the other Brookhaven Project Baseline Summaries.	-891
CH-BRNLWO / Brookhaven National Laboratory Waste Operations	
# Decrease is due to the transfer of these activities to the Office of Science in FY 2001	-6,363
CH-CHOOPUAB / Princeton Site A/B Payments	
# Decrease is due to reduced anticipated scope	-450
CH-COPS / Chicago Operations Program	
# Decrease is due to no further planning for several Headquarters managed grants	-500
CH-PPPLRA / Princeton Plasma Physics Laboratory Remedial Actions	
# Decrease is due to the transfer of these activities to the Office of Science in FY 2001	-260
CH-PPPLWO / Princeton Plasma Physics Laboratory Waste Operations	
# Decrease is due to the transfer of these activities to the Office of Science in FY 2001	-2,774
Total Funding Change, Chicago	<u>-15,789</u>

Idaho

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management (EM) Site/Project Completion program managed by Idaho is to provide interim dry storage for fuel bearing materials currently in the Test Area North Hot Shop Pool. The pool inventory includes Three Mile Island Unit-2 core debris, Loss of Fluid Test fuel, and small quantities of commercial fuels. In addition, this program provides for the deactivation activities associated with two excess reactors and their required surveillance and maintenance.

Program Goal

Throughout the DOE complex, EM is focused on accelerating cleanup and, where possible, completing its mission by FY 2006. At the Idaho National Engineering and Environmental Laboratory, both of the non-defense elements of the EM mission will be completed within the FY 2006 time frame. The Materials Test Reactor and Power Burst Facilities will be deactivated, the Three Mile Island Unit-2 fuel will be in safe, dry storage, and EM's National Low-Level Waste Program responsibilities will be completed. The continued monitoring of Three Mile Island Unit-2 fuel and the operation of the Independent Spent Fuel Storage Installation Facility will be funded under the Post 2006 Completion-Defense Idaho account.

Program Objective

One objective of the program was achieved by completing construction of the Three Mile Island Unit-2 fuel storage facility in FY 1999. Future objectives include completing the majority of non-defense activities in the Spent Nuclear Fuel Stabilization Program, reducing surveillance and maintenance costs by deactivating two excess reactors.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table, as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

- # Initiated startup activities and operation readiness reviews for the recanning of Materials Test Reactor fuels in preparation of the fuel to be moved to dry storage (FY 1999, ID-OIM-110-N).
- # Complete recanning of Materials Test Reactor fuels (FY 2000, ID-OIM-110N).
- # Completed construction of Three Mile Island Unit-2 independent spent fuel storage installation in support of Idaho Settlement Agreement milestones (FY 1999, ID-SNF-104-N).
- # Obtained Nuclear Regulatory Commission license approval for the Three Mile Island Unit-2 independent spent fuel storage installation (FY 1999, ID-SNF-104-N).
- # Provided technical assistance/guidance including data management workshops; fulfilling state specific requests to states and compact regions in support of their efforts to provide for disposal of commercial low-level radioactive waste; and developed a strategy for an approach in addressing the disposal of commercial Greater-Than-Class C Waste (FY 1999/FY 2000, ID-WM-102).

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
ID-OIM-110-N / Pre-FY 2007 Surplus Facility Deactivation Project - Non-Defense	4,638	698	214
ID-OIM-112-N / Pre-FY 2007 Idaho Engineering and Environmental Laboratory Surveillance and Maintenance - Non-Defense	1,303	1,600	1,642
ID-SNF-104-N / Constructed New Facilities - Non-Defense	0	3,500	0
ID-WM-102 / National Low-Level Waste Program	4,042	595	0
Total, Idaho	9,983	6,393	1,856

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Idaho National Engineering and Environmental Laboratory	9,983	6,393	1,856	-4,537	-71.0%
Total, Idaho	9,983	6,393	1,856	-4,537	-71.0%

Metrics Summary

	FY 1999	FY 2000	FY 2001
Project specific metrics and key milestones are included in the Detailed Program Justification as applicable.			

Site Description

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. Three of these reactor facilities (Power Burst Facility, Advanced and Coupled Fast Reactivity Measurement Facility, and Material Test Reactor Canal) are managed by the Office of Environmental Management.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Idaho site is managed through an incentivized integrated management and operating contract, with fixed-price subcontracts, to assure the most cost-effective services to the government. The scope planned for FY 2001 has been reviewed and is appropriate to meet the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure*. For most projects the Army Corps of Engineers performed an independent review of the Environment Management baseline at the Idaho National Engineering and Environmental Laboratory. Funds requested are appropriate to perform activities based on historical cost and engineering estimates.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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ID-OIM-110-N / Pre-FY 2007 Surplus Facility Deactivation Project - Non-Defense

This project provides for Materials Test Reactor Canal fuel removal and deactivation, and Power Burst Facility fuel removal and deactivation.

- # Materials Test Reactor Canal: Training completed and fuel transported to Idaho Nuclear Technology and Engineering Center for dry storage in FY 2001. Project close-out.
- # Power Burst Facility Canal: Manage the fuel storage area and prepare for fuel movement in FY 2002.

ID-OIM-110-N	4,638	698	214
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Metrics

This project has associated metrics; however, no metrics are reportable in the 3-year budget profile.

ID-OIM-112-N / Pre-FY 2007 Idaho Engineering and Environmental Laboratory Surveillance and Maintenance - Non-Defense

This project maintains the Power Burst Facility and storage basin and the Materials Test Reactor fuel storage canal in a safe, secure, and environmentally sound condition until deactivation is complete.

- # Continue to monitor and maintain each of the facilities at the Power Burst Facility and the Materials Test Reactor Canal with the goal of providing a safe working environment for the personnel working in and around the facilities, and prevent release of radioactive or hazardous materials to the environment.

ID-OIM-112-N	1,303	1,600	1,642
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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ID-SNF-104-N / Constructed New Facilities - Non-Defense (93-E-900)

The Long Term Storage of Three Mile Island Fuel project (93-E-900) at the Idaho National Engineering and Environmental Laboratory will provide interim dry storage for fuel bearing materials currently in the Test Area North Hot Shop Pool. The pool inventory includes Three Mile Island-2 core debris, Loss of Fluid Test fuel, and small quantities of commercial fuels. Construction of the Three Mile Island-2 Independent Spent Fuel Storage Installation at the Idaho Nuclear Technology and Engineering Center, which is approximately 25 miles from Test Area North, is complete. The Nuclear Regulatory Commission license was granted in 1999.

Completion of the equipment to accomplish Three Mile Island-2 interim dry storage directly supports the 1995 Court Ordered Settlement Agreement Milestone #E-7. The Agreement states, "DOE shall complete construction of the Three Mile Island dry storage facility by December 31, 1998. DOE shall commence moving fuel into the facility by March 31, 1999, and shall complete moving fuel into the facility by June 1, 2001." This settlement agreement paragraph does not address the Loss of Fluid Test and commercial fuel.

The Three Mile Island Unit-2 spent nuclear fuel inventory will be moved to the new facility at the Idaho Nuclear Technology and Engineering Center by using funds requested through the Defense Appropriation under Project Baseline Summary ID-SNF-103.

Fabrication, delivery and acceptance of equipment to support the transfer of the remaining 11 dry shielded canisters of Three Mile Island Unit-2 spent nuclear fuel from the Test Area North-607 pool will be completed. Operations, Project Baseline Summary# ID-SNF-103, will then transfer the Three Mile Island-2 fuel from Test Area North-607 to the Idaho Nuclear Technology and Engineering Center, CPP-1774 for interim dry storage. Completion of this workscope by June 1, 2001, will satisfy the Settlement agreement milestone stated above. The project will also complete design and construction of the Loss of Fluid Test and commercial fuel storage equipment.

ID-SNF-104-N	0	3,500	0
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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ID-WM-102 / National Low-Level Waste Program

Program management activities provide for technical support to the States and compact regions, and address DOE's Greater-Than-Class-C Low-Level Waste responsibilities.

No FY 2001 activities planned.

ID-WM-102	4,042	595	0
Total, Idaho	<u>9,983</u>	<u>6,393</u>	<u>1,856</u>

Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

ID-OIM-110-N / Pre-FY 2007 Surplus Facility Deactivation Project - Non-Defense

Decrease reflects pushing out the schedule for fuel receipt from the Power Burst Facility one year (from FY 2001 to FY 2002) -484

ID-OIM-112-N / Pre-FY 2007 Idaho Engineering and Environmental Laboratory Surveillance and Maintenance - Non-Defense

Minimal increase due to escalation 42

ID-SNF-104-N / Constructed New Facilities - Non Defense (93-E-900)

Decrease in funding is due to completion of the Three Mile Island Independent Spent Fuel Storage Installation with FY 2000 funds -3,500

ID-WM-102 / National Low-Level Waste Program

Decrease reflects reprioritization to fund other higher priority cleanup activities. -595

Total Funding Change, Idaho -4,537

Oakland

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management (EM) Site/Project Completion program managed through the Oakland Operations Office is to plan and implement remediation and waste treatment, storage, and disposal activities at six sites and associated activities at the Oakland Operations Office. These sites include Lawrence Berkeley National Laboratory, the Energy Technology Engineering Center, the General Electric Vallecitos Nuclear Center, the General Atomics facility, the Laboratory for Energy-Related Health Research, and the Stanford Linear Accelerator Center. The Non-Defense account also includes the administration of grants and program management activities at the Oakland Operations Office. The Lawrence Berkeley National Laboratory and the Stanford Linear Accelerator Center continue to have operating facilities under the Office of Science, while the other sites are being returned to the landowners.

Program Goal

One of the EM programmatic goals is to have cleanup completed at four of the six sites by 2006 and two sites in Post 2006. Other programmatic goals include ensuring operations, facilities and contaminated sites pose no undue risk to the public, worker health and safety; to maintain compliance with applicable environmental laws; and managing risks associated with current and prior DOE operations at these sites. All projects associated with General Electric and the Energy Technology Engineering Center have been moved to the Post 2006 account, consistent with the current budget structure.

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; and develop, demonstrate, test and evaluate new cleanup technologies. These program activities are conducted taking an integrated approach to assessing work and meeting schedules, while balancing risk, mortgage reduction, compliance, cost efficiencies, stakeholder input, and implementation of enhanced performance mechanisms. Financial responsibility for the newly generated waste project at the Lawrence Berkeley National Laboratory will be returned to the generating DOE program in FY 2001. Cleanup at the Energy Technology Engineering Center and General Electric will extend beyond FY 2006 and all legacy waste will be characterized and shipped off-site by FY 2006. Long-term surveillance and maintenance of implemented remedial actions (e.g.,

pump and treat facilities) will be assumed by the landlord program or landowner, as the case may be at individual sites, after cleanup and waste disposal is complete.

The Oakland Operations Office has plans for the use of innovative technologies at several of its installations. For example, a new remediation technology using water-vapor and nitrogen was chosen for cleaning the sodium loop/systems at the Energy Technology Engineering Center. This technology was selected because it was proven to be a cost-effective method for the removal of sodium and will not generate hazardous waste. Use of the innovative technology, BetaScint, at the Laboratory for Energy Related Health Research enabled the expedited analysis and characterization of native soils suspected of having strontium-90 in the southwest trenches.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table, as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

- # Continue environmental restoration activities, i.e., groundwater monitoring, treatment system operation, removal actions, decontamination and decommissioning at Lawrence Berkeley National Laboratory, Stanford Linear Accelerator Center, the Laboratory for Energy-Related Health Research, and the Energy Technology Engineering Center, to ensure compliance with Federal Facility Agreements and state orders and continue to meet commitments in the *Accelerating Cleanup: Paths to Closure* (FY 2000).
- # Disposed of about 1,000 cubic meters of low-level waste from the Energy Technology Engineering Center (FY 1999).
- # Completed assessment activities for the SNAP-8 Groundwater Prototype Test Facility and the H-1 Heater, continue pipe removal and complete bulk sodium removal from the Small Component Test Installation at the Energy Technology Engineering Center (FY 1999).
- # Completed Engineering Evaluation/Cost Analysis and Remedial Action workplan and begin removal actions at Sr-90/Ra-226 areas and continue the removal action at the Southwest Trenches Area at the Laboratory for Energy-Related Health Research (FY 1999).
- # Completed interim removal action at the Lower Salvage Yard, and Remedial Investigation/Feasibility Study activities at the Test Laboratory/Central Laboratory area and Plating Shop at the Stanford Linear Accelerator Center (FY 1999).

- # Prepared and shipped Lawrence Berkeley National Laboratory mixed waste to Idaho National Engineering and Environmental Laboratory and began to dispose of the backlog of low-level waste formerly stored at the old Hazardous Waste Management Facility (FY 1999).
- # Completed shipments of low-level legacy biowaste from the Laboratory for Energy-Related Health (FY 1999).
- # Performed interim corrective measures at Building 17 and 52 by removing polychlorinated biphenyl contaminated soil at Lawrence Berkeley National Laboratory (FY 1999).
- # Completed the dismantlement of the Hot Cell Facility and soil remediation activities at General Atomics (FY 1999).
- # Complete cleanup activities at the General Atomics Site (FY 2000).
- # Begin negotiation of cost shared contract with General Electric for decontamination and decommissioning of General Electric Hot Cell (FY 2000).
- # Continue storage, treatment, and some off-site disposal of waste (low-level, mixed low-level, and transuranic) at the Lawrence Berkeley National Laboratory, the Laboratory for Energy-Related Health Research, and the Energy Technology Engineering Center (FY 2000).
- # Complete Resource Conservation and Recovery Act closure of mixed waste storage facility at the Laboratory for Energy-Related Health Research (FY 2000).
- # Dispose of 283 cubic meters of low-level waste from the Energy Technology Engineering Center (FY 2000).
- # Continue preparation of transition plan and implementation of DOE Order 435.1 at the Lawrence Berkeley National Laboratory (FY 2000).
- # Complete workplan and removal action for Domestic Tanks at the Laboratory for Energy-Related Health Research (FY 2001).
- # Begin surveillance and maintenance of irradiated fuel materials stored at General Atomics (FY 2001).
- # Continue to reduce inventory of legacy waste and transfer responsibility for newly generated waste to the Office of Science (FY 2001).

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request at Target
OK-003 / Lawrence Berkeley National Laboratory Soils and Groundwater (Environmental Restoration)	3,500	3,382	3,500
OK-005 / Stanford Linear Accelerator Center (Environmental Restoration)	1,250	1,400	1,400
OK-007 / Energy Technology Engineering Center Remediation	10,874	10,047	0
OK-009 / Energy Technology Engineering Center Landlord	2,280	3,632	0
OK-010 / Laboratory for Energy-Related Health Research Environmental Restoration	4,030	2,985	5,500
OK-012 / Hot Cell Facility Decontamination and Decommissioning at General Atomics	2,843	1,092	100
OK-013 / General Electric Decontamination and Decommissioning (Environmental Restoration)	0	500	0
OK-014 / Laboratory for Energy-Related Health Research Waste Management	1,559	702	1,000
OK-015 / Lawrence Berkeley National Laboratory Legacy Waste	839	1,490	1,500
OK-016 / Lawrence Berkeley National Laboratory Newly Generated Wastes	4,940	6,032	0
OK-040 / Program Management and State Grants	0	300	90
OK-042 / Energy Technology Engineering Center Waste Management	2,796	3,480	0
Total, Oakland	34,911	35,042	13,090

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Energy Technology Engineering Center/Santa Susana Field Laboratory (CA)	15,950	17,159	0	-17,159	-100.0%
General Atomics (CA)	2,843	1,092	100	-992	-90.8%
General Electric (CA)	0	500	0	-500	-100.0%
Lawrence Berkeley National Laboratory (CA)	9,279	10,904	5,000	-5,904	-54.1%
Oakland Operations Office (CA)	0	300	90	-210	>999.9%
Stanford Linear Accelerator Center (CA)	1,250	1,400	1,400	0	0.0%
U.C. Davis / Laboratory for Energy-Related Health Research (CA)	5,589	3,687	6,500	2,813	76.3%
Total, Oakland	34,911	35,042	13,090	-21,952	-62.6%

Metrics Summary

	FY 1999	FY 2000	FY 2001
Remedial Action/Release Site			
Assessments	8	10	5
Cleanups	7	2	10
Facility Decommissioning			
Assessments	6	3	0
Cleanups	5	5	0
Mixed Low-Level Waste			
Treatment (m ³)	12	117	0
Commercial Disposal (m ³)	6	29	0
Low Level Waste			
Commercial Disposal (m ³)	2,324	350	512

Site Description

Lawrence Berkeley National Laboratory

The 130-acre Lawrence Berkeley National Laboratory site is located adjacent to the University of California in Berkeley, California. Remediation activities at the Lawrence Berkeley National Laboratory focus on characterization and remediation of contaminated soil and groundwater and the closure of the old Hazardous

Waste Handling Facility. Currently, there are 163 release sites and one facility on site, in the environmental restoration program to be completed by FY 2003. The waste management activities provide compliant storage, treatment, and off-site disposal of both legacy and currently generated hazardous and radioactive waste. Disposal of a backlog of non-compactible low-level waste to Hanford will begin in FY 1999. The financial responsibility for newly generated waste project will be returned to the generating DOE program by FY 2001.

Energy Technology Engineering Center

The Energy Technology Engineering Center is a DOE facility located on 90 acres of leased land from Boeing North American Corporation in Simi Valley, California. The environmental restoration activities at the Energy Technology Engineering Center are to remediate contaminated groundwater, complete decontamination and decommissioning of several remaining radiological facilities, deactivate and clean up existing sodium facilities, provide landlord functions, and perform waste characterization and off-site disposal. Overall site cleanup will be achieved by FY 2007 at which time it will be returned to the landowners.

General Electric

The General Electric Site is a privately-owned site located near Pleasanton, California. Activities are focused on cleanup of a High Level Hot Cell and irradiated reactor components and a glove box enclosure. The General Electric site is comprised of two facilities, and cleanup will be completed by FY 2008. Once the facility cleanup is complete, it will be returned to the landowners for future use.

General Atomics

The General Atomics site is privately-owned, operated, and located near San Diego, California. General Atomics has maintained and operated a Hot Cell Facility for over 30 years to conduct both government and commercially funded nuclear research and development. Department of Energy efforts are focused on cleanup of the Hot Cell Facility and surrounding contaminated soils. The General Atomics site is comprised of one facility and two release sites, all of which will be completed by FY 2000. Cleanup activities will be finalized with the off-site removal of legacy waste and return of the site to the landowners for unrestricted future use. Surveillance and maintenance of spent nuclear fuel that will be stored on site will continue until 2005, when it will be shipped for disposal.

Laboratory for Energy-Related Health Research

The Laboratory for Energy-Related Health Research site is located at the University of California, Davis. Research at the laboratory originally focused on the health effects from chronic exposure to radionuclides using animal subjects to simulate radiation effects on humans. DOE terminated the research program and closed the

laboratory in 1988. Environmental restoration activities are directed toward cleaning up DOE areas of site contamination for release to the University of California, Davis without radiological restrictions. The Laboratory for Energy-Related Health Research site is comprised of 17 release sites and 8 facilities. Waste characterization and off-site disposal and overall site cleanup will be completed by FY 2004.

Stanford Linear Accelerator Center

The Stanford Linear Accelerator Center site is a 426-acre site located at Stanford University in California. It is managed for DOE by Stanford University where theoretical research in high-energy particle physics is conducted. Remediation efforts focus on the cleanup of polychlorinated biphenyls contaminated soil sites and several solvent contaminated groundwater and soil sites. The Stanford Linear Accelerator Center site is comprised of 14 release sites, all of which will be completed in FY 2002. Responsibility for waste management activities was transferred to the Office of Science, the generating DOE program, in FY 1998.

Oakland Operations Office

The Oakland Operations Office and the State of California have an agreed to statement of work for grant funds. Oakland Operations Office awards and manages grants provided to the state for oversight activities which include, participation in meetings, review of documents, and involvement with the public.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Lawrence Berkeley National Laboratory, and Stanford Linear Accelerator Center, sites are managed through performance based management and operating contracts to assure the most cost-effective services to the government. The Laboratory for Energy-Related Health Research and Energy Technology Engineering Center sites are managed through cost and performance incentivized contracts. The scope planned for FY 2001 at these sites has been reviewed and is appropriate to meet the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure*. The project work at these sites have had an independent cost review of the scope (e.g. the Corps of Engineers and Oakland's in-house non-programmatic cost estimating staff have reviewed the Energy Technology Engineering Center scope and the Laboratory for Energy-Related Health Research scope and cost). The funds requested for FY 2001 for these sites are appropriate to perform the activities based on historical level of effort costs.

OK-003 / Lawrence Berkeley National Laboratory Soils and Groundwater (Environmental Restoration)

The mission of this project is to investigate and cleanup all releases of hazardous and/or radioactive waste in soil and groundwater that may have occurred at the site. These areas have been identified as release sites. All remediation activities will be conducted using Resource Conservation and Recovery Act guidance and state regulations.

Lawrence Berkeley National Laboratory environmental restoration soil and groundwater cleanup activities in FY 2001 include the following:

- < Continue monitoring, maintenance, and operations under remediation.
- < Prepare quarterly progress reports and a reduction of well sampling report.
- < Continue implementation of corrective measures. This includes excavation and disposal of approximately 1,000 cubic yards of contaminated soil.

OK-003	3,500	3,382	3,500
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics			
Remedial Actions/Release Sites			
Assessments	7	8	0
Cleanups	5	0	0
Remediation Waste Disposal	0	194	527
Key Milestones			
# Complete risk assessment (September 2000)			
# Complete corrective measures studies (March 2001)			

OK-005 / Stanford Linear Accelerator Center (Environmental Restoration)

The mission of this project is to clean up contaminated soils and groundwater using Comprehensive Environmental Response, Compensation and Liability Act technical guidance. The Stanford Linear Accelerator Center is an operating facility which is being operated by Stanford University under a contract with DOE to conduct theoretical research in high-energy particle physics. The DOE Office of Science will be responsible for the groundwater monitoring system and maintenance and operation of any required hydraulic containment systems beyond Fiscal Year 2002.

- # In FY 2001, four release sites, Substation 505, Collider Injector Development, IR-6 Drainage Channel Phase II, and the Plating Shop, will be completed. Additionally, the Feasibility Study and pilot testing will be completed for the soil vapor extraction system at the Former Hazardous Waste Storage Area.
- # Required semi-annual groundwater sampling will be completed and associated reports will be submitted to the Regional Water Quality Control Board.

OK-005	1,250	1,400	1,400
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics			
Remedial Actions/Release Sites			
Assessments	1	1	5
Cleanups	1	2	4
Key Milestones			
#	Submit Remedial Investigation/Feasibility Study Report for the Former Hazardous Waste Storage Area to regulators (February 2001).		
#	Submit Remedial Investigation/Feasibility Study Report Plating Shop to regulators (June 2001).		
#	Submit to regulators final report on Substation 505/Collider Injector (September 2001).		

OK-007 / Energy Technology Engineering Center Remediation

This project accomplishes (1) cleanup of contaminated release sites; (2) decontamination and decommissioning of radioactive, and chemically contaminated facilities at the Energy Technology Engineering Center for eventual release to Boeing; and (3) remediation of contaminated groundwater.

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure.

OK-007	10,874	10,047	0
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Metrics			
Facility Decommissioning			
Assessments	6	3	0
Cleanups	4	5	0
Key Milestones			
#	Complete facility demolition of B/059 (September 2000).		

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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OK-009 / Energy Technology Engineering Center Landlord

This project accomplishes all infrastructure management and surveillance and maintenance activities at the Energy Technology Engineering Center. Activities include: (1) landlord general support, such as rent, environmental support, permits, security and fire protection; (2) surveillance and maintenance (laboratory, facilities, records, and other support services). Landlord responsibilities for the Energy Technology Engineering Center were transferred to EM in FY 1997 from Nuclear Energy.

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure.

OK-009	2,280	3,632	0
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OK-010 / Laboratory for Energy-Related Health Research Environmental Restoration

This project accomplishes; (1) decontamination and decommissioning of radioactive and chemically contaminated facilities; (2) removal of on-site radioactive sources; (3) remediation and/or removal of soil contamination at DOE burial areas, leach fields, and outdoor dog pens; (4) closure or removal of underground tanks; (5) verification of cleanup completion; and (6) post closure monitoring as required by Comprehensive Environmental Response, Compensation and Liability Act for National Priority List sites. The cleaned facilities and land will be returned to the University of California, Davis for future use.

Complete work plan and removal action for Domestic Tanks.

Complete Ra/Sr Treatment Area confirmation report.

OK-010	4,030	2,985	5,500
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics			
Remedial Actions/Release Sites			
Assessments	0	1	0
Cleanups	1	0	6
Key Milestones			
# Initiate Ra/Sr tanks removal (August 2000).			
# Complete Sr leach field and piping system remedial action (September 2001).			

OK-012 / Hot Cell Facility Decontamination and Decommissioning at General Atomics

The mission of this project is to remove radiological and hazardous contamination from the Hot Cell Facility leading to the release of the site to the landowner for future use.

Irradiated Fuel Materials surveillance and maintenance activities.

OK-012	2,843	1,092	100
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Metrics			
Facility Decommissioning			
Cleanups	1	0	0
Mixed Low-Level Waste			
Storage (m ³)	1	0	0
Treatment (m ³)	0	1	0
Low Level Waste			
Storage (m ³)	140	0	0
Treatment (m ³)	8	0	0
Commercial Disposal (m ³)	1,715	0	0
Shipped to DOE Disposal Site (m ³)	617	178	0
Key Milestones			
# Obtain regulatory release of site to unrestricted use (August 2000).			

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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OK-013 / General Electric Decontamination and Decommissioning (Environmental Restoration)

This project allows for the decontamination of Hot Cell #4 located in the Radioactive Materials Laboratory in Building 102 at the General Electric Vallecitos site near Pleasanton, California. Through negotiations, issues related to cost sharing percentages between DOE and General Electric, contract pricing, and allowances for past costs will be addressed.

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure.

OK-013	0	500	0
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<p>Metrics</p> <p>This project has associated metrics; however, no metrics are reportable in the 3-year budget profile.</p>
<p>Key Milestones</p> <p># Begin negotiation with General Electric on cost shared contract (June 2000).</p>

OK-014 / Laboratory for Energy-Related Health Research Waste Management

The mission of this project is to characterize, treat, transfer and/or dispose of remaining environmental restoration waste.

The waste management program will continue to store, finalize profiles, and transport and dispose of waste from the Radium-226 and Imhoff removal action.

Tank A waste will be stabilized/treated prior to transport.

Initiate storage, designation and profiling of waste from the domestic septic tank and dog pen removal actions.

OK-014	1,559	702	1,000
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics			
Mixed Low-Level Waste			
Storage (m ³)	0	1	50
Commercial Disposal (m ³)	0	1	0
Low-Level Waste			
Storage (m ³)	498	1,368	2,199
Commercial Disposal (m ³)	498	270	504
Shipped to DOE Disposal Site (m ³)	0	0	633
Hazardous Waste			
On-Site Disposal (MT)	300	1	1

OK-015 / Lawrence Berkeley National Laboratory Legacy Waste

The mission of this project is to reduce inventories of previously generated low-level radioactive waste that has been generated by DOE programs at Lawrence Berkeley National Laboratory for which the Environmental Management program is responsible. Activities in this project support the treatment, storage, and disposition of legacy waste.

This activity covers issues related to management of legacy waste. It includes sampling of legacy waste as needed to prepare shipments and to improve the certification rating in the waste tracking data base as needed. Includes certification oversight of related projects.

OK-015	839	1,490	1,500
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics			
Low-Level Waste			
Storage (m ³)	58	28	18
Treatment (m ³)	27	30	8
Commercial Disposal (m ³)	27	30	8
Key Milestones			
#	Ship 30 cubic meters of low-level waste (September 2000).		

OK-016 / Lawrence Berkeley National Laboratory Newly Generated Wastes

Activities in this project are required to treat, store, transport, and dispose of newly generated hazardous, radioactive transuranic and mixed waste. Limited treatment of low-level waste and mixed waste is done on site. Packaging and shipping of hazardous waste, low-level waste and mixed waste in accordance with off-site Treatment, Storage, Disposal Facility requirements is the primary work performed in this project. Funding and management responsibility for these activities is transferred to the Office of Science in FY 2001.

OK-016	4,940	6,032	0
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Metrics			
Transuranic Waste			
Storage (m ³)	1	1	0
Mixed Low-Level Waste			
Storage (m ³)	11	12	0
Treatment (m ³)	9	1	0
Commercial Disposal (m ³)	4	3	0
Shipped to DOE Disposal Site (m ³)	9	0	0
Low-Level Waste			
Storage (m ³)	33	27	0
Treatment (m ³)	29	50	0
Commercial Disposal (m ³)	29	50	0
Key Milestones			
#	Ship 50 cubic meters of low-level waste (September 2000).		
#	Ship 3 cubic meters of mixed waste (September 2000).		

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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OK-040 / Program Management/Grants

This project provides funding for the Oakland Operations Office to support and manage state grants.

Award funds to the San Francisco Regional Water Quality Control Board for the Lawrence Berkeley National Laboratory, and Stanford Linear Accelerator Center site grant.

Award funds to the Central Valley Regional Water Quality Control Board for the Laboratory for Energy-Related Health Research site grant.

Award funds to the Department of Toxic Substances Control for the Laboratory for Energy-Related Health Research site grant.

OK-040	0	300	90
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OK-042 / Energy Technology Engineering Center Waste Management

This project accomplishes all necessary activities to manage and implement a waste management program for ongoing and planned environmental cleanup activities at the Energy Technology Engineering Center site. This project funds an existing facility that will provide centralized waste management of radioactive, and mixed waste generated from environmental cleanup activities and transportation of wastes for its final disposition. Funded activities include the operation of the Radioactive Material Handling Facility.

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure.

OK-042	2,796	3,480	0
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Metrics	FY 1999	FY 2000	FY 2001
Transuranic Waste			
Storage (m ³)	11	11	0
Mixed Low-Level Waste			
Storage (m ³)	17	242	0
Treatment (m ³)	3	115	0
Commercial Disposal (m ³)	2	25	0
Low-Level Waste			
Storage (m ³)	206	1,286	0
Treatment (m ³)	0	50	0
Commercial Disposal (m ³)	55	0	0
Shipped to DOE Disposal Off-site (m ³)	836	283	0

Total, Oakland	34,911	35,042	13,090
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Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

OK-003 / Lawrence Berkeley National Laboratory Soils and Groundwater

No significant increase/change. Funding level maintained to complete cleanup at the Lawrence Berkeley National Laboratory in FY 2003 118

OK-005 / Stanford Linear Accelerator Center (Environmental Restoration)

No change; maintains funding to complete remedial actions at the Stanford Linear Accelerator Center site by FY 2002 0

OAK-007 / Energy Technology Engineering Center Remediation

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure -10,047

OAK-009 / Energy Technology Engineering Center Landlord

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure -3,632

FY 2001 vs. FY 2000 (\$000)

OK-010 / Laboratory for Energy-Related Health Research Environmental Restoration	
# Increased funding level is required to meet activities being negotiated and committed to in a Federal Facility Agreement	2,515
OK-012 / Hot Cell Facility Decontamination and Decommissioning at General Atomics	
# Decrease reflects project completion in FY 2000	-992
OK-013 / General Electric Decontamination and Decommissioning (Environmental Restoration)	
# The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure	-500
OK-014 / Laboratory for Energy-Related Health Research Waste Management	
# Increase in volume and disposal cost for low-level waste	298
OK-015 / Lawrence Berkeley National Laboratory Legacy Waste	
# No significant change	10
OK-016 / Lawrence Berkeley National Laboratory Newly Generated Wastes	
# Funding and management responsibility for these activities has been transferred to the Office of Science in FY 2001	-6,032
OK-040 / Program Management and State Grants	
# Decreased funding for the Oakland Operations Office for support and management of the state grants associated with regulatory, oversight and participation and other grant activities	-210
OK-042 / Energy Technology Engineering Center Waste Management	
# The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure	-3,480
Total Funding Change, Oakland	<u>-21,952</u>

Hanford Site - Richland Operations Office

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management Site/Project Completion program, managed by the Richland Operations Office, is cleanout and surveillance and maintenance activities for buildings formerly used for DOE Office of Nuclear Energy research and development.

Program Goal

The goal is to transition former Office of Nuclear Energy facilities to safe, compliant, long-term, economic, interim condition pending ultimate disposition.

Program Objective

The objective is to perform cleanout and stabilization activities to put these facilities into a low-cost surveillance and maintenance condition as soon as possible.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table, as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

No significant change.

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
RL-TP11 / Advanced Reactors Transition	1,859	1,394	1,500
Total, Richland	1,859	1,394	1,500

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Hanford	1,859	1,394	1,500	106	7.6%
Total, Richland	1,859	1,394	1,500	106	7.6%

Metrics Summary

	FY 1999	FY 2000	FY 2001
The project in the Detailed Program Justification has associated metrics; however, no metrics are reportable in the 3-year budget profile.			

Site Description

Richland Operations Office--Hanford Site

The Richland Operations Office manages the Hanford site, which is located on 560 square miles (1,450 square kilometers) in southeastern Washington. Hanford was among the first facilities constructed by the Manhattan Project for the production of plutonium for national defense. Historically, the Hanford mission was plutonium production, reactor and processing operations, and research related to advanced reactors, energy technologies, and basic sciences. All production activities ceased in 1989, leaving a legacy of significant quantities of hazardous and nuclear waste.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The 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 scope planned for FY 2001 has been reviewed and is appropriate to meet the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure*. All 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 2001 are appropriate to perform the activities based on estimated project progress and accumulated cost management success.

RL-TP11

The purpose of this project is to safely transition the Plutonium Recycle Test Reactor/309 Building and the Nuclear Energy Legacy Sodium Facilities to a deactivated state. This includes minimum safe surveillance and maintenance activities necessary for maintaining facility safety basis.

Continue surveillance and maintenance activities in order to assure safe operation of the Plutonium Recycle Test Reactor and the Nuclear Energy Legacy Sodium Facilities.

RL-TP11	1,859	1,394	1,500
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Metrics
This project has associated metrics; however, no metrics are reportable in the 3-year budget profile.

Total, Richland	1,859	1,394	1,500
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Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

RL-TP11 / Advanced Reactors Transition

# No significant change	106
Total Funding Change, Richland	106

Multi-Site

Mission Supporting Goals and Objectives

Program Mission

The mission carried out by the Multi-Site program is to integrate crosscutting activities across the DOE complex.

Program Goal

The goal of the Multi-Site program is to allow the Environmental Management (EM) program to better coordinate EM-wide and the Department of Energy (DOE)-wide program efforts and avoid overlaps and inconsistencies.

Program Objectives

The activities of the Multi-Site program focused attention on areas that impacted the Environmental Management goals and planned efforts which cut across the Department of Energy complex.

Performance Measures

There are no Performance Measures associated with the Multi-Site activities.

Significant Accomplishments and Program Shifts

Supported congressional and Departmental initiatives and corrected deficiencies that surfaced during the year (FY 2000).

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Budget Request	FY 2001 Request
HQ-PM-PCND / Policy and Management	0	317	0
Total, Multi-Site Activities	0	317	0

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Multi-Site	0	317	0	-317	-100.0%
Total, Multi-Site	0	317	0	-317	-100.0%

Detailed Program Justification

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
HQ-PM-PCND / Policy and Management			
<p>The activities funded by this Project Baseline Summary provided EM and others the technical support required for congressional and Departmental initiatives associated with the EM program that surfaced during the year.</p> <p># No activity.</p>			
HQ-PM-PCND	0	317	0
Total, Multi-Site	0	317	0

Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

**Environmental Management/Non-Defense
Environmental Restoration and Waste
Management/Site/Project Completion/
Multi-Site**

FY 2001 Congressional Budget

HQ-PM-PCND / Policy and Management

# Activities were completed in FY 2000	-317
Total, Multi-Site	<u>-317</u>

**Environmental Management/Non-Defense
Environmental Restoration and Waste
Management/Site/Project Completion/
Multi-Site**

FY 2001 Congressional Budget

Post 2006 Completion

Program Mission

The Non-Defense Post 2006 Completion account includes Environmental Management (EM) projects currently planned to require funding beyond FY 2006. Within the Non-Defense Environmental Management appropriation, this account includes projects at the Grand Junction Site in Colorado, the Los Alamos National Laboratory in New Mexico, the Energy Technology Engineering Center and General Electric sites in California, the West Valley Demonstration Project in New York, and the packaging certification program at Headquarters.

After completion of cleanup, it will be necessary for the EM program to maintain a presence at some sites to monitor, maintain, and provide information on the contained residual contamination. These activities will be necessary to ensure the reduction of risk to human health is maintained. Such stewardship will include passive or active controls, and often, treatment of groundwater over a long period of time. The extent of long-term stewardship required at a site will reflect the end-state developed in consultation among the U.S. Department of Energy and other representatives of the Administration, Congress, Tribal Nations, representatives of regulatory agencies and State and local authorities, representatives of non-governmental organizations, and interested members of the general public.

Program Goal

Accelerating cleanup and project completion are central goals of the EM program. Environmental Management sites are working to reduce outyear costs by completing projects as soon and as efficiently as possible. For those sites in the Post 2006 Completion account, treatment will continue for the remaining "legacy" waste streams.

Program Objectives

- # Address the environmental risks across the Department of Energy complex and ensure that facilities and activities pose no undue risks to the public and worker safety and health.
- # Be in compliance with applicable environmental and other requirements and meet compliance milestones.
- # Continue surveillance and maintenance of facilities.

Performance Measures

The Environmental Management program prepares a performance-based budget that demonstrates the program and project results expected for the resources requested. The EM program performance measures can be found in the site details that follow this overview section.

Significant Accomplishments and Program Shifts

The FY 2001 request reflects EM's project-oriented structure as a key component of the effort to accelerate cleanup and reduce costs. All EM activities are organized into projects which have a defined scope, schedule, cost, and end state. Specific accomplishments and program shifts may be found in the site details that follow this overview section.

Funding Profile

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Original Appropriation	FY 2000 Adjustment s	FY 2000 Current Appropriation	FY 2001 Request
Post-2006 Completion	90,776	18,922	(72)	18,850	139,644
Total, Non-Defense Post-2006 Completion .	90,776	18,922	(72) ^a	18,850	139,644

Public Law Authorization:

Public Law 106-60, "The Energy and Water Development Appropriations Act, 2000"

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

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

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

Public Law 95-604, "Uranium Mill Tailings Radiation Control Act (1978)"

Public Law 100-616, "Uranium Mill Tailings Remedial Action Amendments Acts of 1998"

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Albuquerque Operations Office	1,611	5,333	9,081	3,748	70.3%
Multi-Site	9,238	9,604	3,700	-5,904	-61.5%
Oak Ridge	79,927	3,913	0	-3,913	-100.0%
Oakland	0	0	19,510	19,510	>999.9%

^a Reflects congressional rescission.

Ohio	0	0	107,353	107,353	>999.9%
Total, Non-Defense Post-2006 Completion . .	90,776	18,850	139,644	120,794	640.8%

Albuquerque

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management, Post 2006 Completion program, carried out by the Albuquerque Operations Office, is to support a portion of the activities at the Los Alamos National Laboratory in New Mexico and the Long-Term Surveillance and Maintenance Program at the Grand Junction Office.

Program Goal

The Los Alamos National Laboratory has been designated as the lead laboratory for planning and operations for the recovery and disposition of unwanted radioactive sealed sources, from both the public and private sectors, which have no previous or current disposition options. In this capacity, the Los Alamos National Laboratory provides solutions to complex-wide technical and operational issues associated with stabilization and storage of plutonium and other nuclear materials. The Long-Term Surveillance and Maintenance Program at the Grand Junction Office is responsible for the long-term custody and care of ultimately more than 50 disposal sites and will continue indefinitely.

Program Objectives

The objective of the Off-site Source Recovery Program is to establish compliance with the Low-Level Radioactive Waste Policy Amendments Act of 1985 (Public Law 99-240) with respect to unwanted radioactive sealed sources, which under the Act, are made a Department of Energy responsibility. A further objective of this program is to remove these unwanted radioactive sources from the private and public sectors as expeditiously as possible. This effort will reduce potential risk to the public health and safety, and the environment by the systematic recovery of these sources for acceptance at the Los Alamos National Laboratory, where they can be consolidated and safely stored until a final disposition path is identified. The Long-Term Surveillance and Maintenance Program provides long-term surveillance, environmental monitoring, maintenance, site security, annual reporting, and emergency response capabilities for transferred disposal sites from Albuquerque, as well as other EM sites.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table; as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

- # Emphasized more aggressive recovery of sealed sources from the private sector to reduce risk. Safe compliant storage developed to permit access to stored materials for reuse/recycle if a need arises and/or disposition directly to disposal when a site becomes available. Key accomplishments included:
 - < The pilot program for routine recovery of Americium/Beryllium (Am/Be) neutron sources based on the Nuclear Regulatory Commission priorities has been finished, completing the recovery of 56 sources. Two additional sources were recovered during the same period based on Nuclear Regulatory Commission emergency requests for assistance (FY 1999).
 - < Approximately 30 additional sources were recovered in coordination with the Nuclear Regulatory Commission, Agreement State nuclear material regulatory authorities, and other agencies as appropriate (FY 1999).
 - < About 100 neutron sources currently at the Los Alamos National Laboratory will be consolidated for storage in prototype multi-function containers. These containers will be placed in storage until the multi-function containers are available (FY 2000).
- # Recover, through commercial contractors, approximately 400 sources and provide compliant storage (FY 2000).
- # Implement a cost recovery plan and submit a management plan for recovery and acceptance of excess commercial reactor start-up neutron source assemblies as the Greater Than Class-C material (FY 2000).
- # Consolidate operations at custodian's site for excess Pu-238 Pacemakers (FY 2000).
- # Program Shift: Transfer the Long-Term Surveillance and Maintenance Program from the Grand Junction Office All Other Projects (FY 2001).

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
AL-031 / Long-Term Surveillance and Maintenance Program	0	0	5,100
AL-032 / Off-site Source Recovery Program - Non-Defense	1,611	5,333	3,981
Total, Albuquerque	1,611	5,333	9,081

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Grand Junction	0	0	5,100	5,100	>999%
Los Alamos National Laboratory	1,611	5,333	3,981	-1,352	-25.4%
Total, Albuquerque	1,611	5,333	9,081	3,748	70.3%

Metrics Summary

	FY 1999	FY 2000	FY 2001
Remedial Actions/Release Sites			
Cleanup	0	0	0
Low-Level Waste			
Disposal (m ³)	0	0	0
Project specific metrics and key milestones are included in the Detailed Program Justification as applicable.			

Site Description

Los Alamos National Laboratory

The Los Alamos National Laboratory encompasses over 43 square miles in northern New Mexico, and conducts major programs in multiple areas including: applied research in nuclear and conventional weapons in development, nuclear fission and fusion, nuclear safeguards and security, and environmental and energy research. The waste produced includes low-level, mixed, hazardous, transuranic, sanitary waste streams, and small amounts of other waste from research. The primary waste management activities include storage, treatment, and disposal of waste.

Grand Junction Office

The Grand Junction Office is located immediately south of the City of Grand Junction, Colorado, on a 57 acre site adjacent to the Gunnison River. The Grand Junction Office's primary mission is the closeup of small sites and the long-term surveillance of completed sites. Current Grand Junction Office project assignments include the Monticello millsite and vicinity properties cleanup, the Grand Junction Office Remedial Action Project, the Long-Term Surveillance and Maintenance Program, the Uranium Leasing Program, the Grand Junction Office Waste Management Program, the Grand Junction Office Landlord Program, the Pinellas Environmental Restoration Program, the Maxey Flats Program, and the Uranium Mill Tailings Remedial Action Groundwater Project. The Grand Junction Office is responsible for comprised of 44 release sites and 44 facilities of which the Uranium Mill Tailings Remedial Action Groundwater Project consists of 22 release sites.

The Long-Term Surveillance and Maintenance Program conducts stewardship activities for 25 sites. For each site, the Long-Term Surveillance and Maintenance Program ensures that the on-site contaminated materials remain isolated from the environment, that the safety of the public and the environment is maintained, and that all applicable regulations are met. Program scientists, engineers, and specialists conduct inspections, provide maintenance, monitor performance, perform research and archive records.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Los Alamos National Laboratory is managed through a performance based management and operating contract or cost-plus award fee contract to assure the most cost-effective services to the government. The scope planned for FY 2001 has been reviewed and is appropriate to meet the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure*. This project has undergone an internal cost review. The funds requested for FY 2001 are appropriate to perform the activities based upon an internal cost review of this project and a review of similar projects that have undergone independent reviews at this facility.

AL-031/Long-Term Surveillance and Maintenance Program

This program is responsible for the long-term custody and care of transferred disposal sites from Albuquerque and other EM program sites.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Provide for long-term surveillance, environmental monitoring, maintenance, site security, annual reporting, and emergency response for transferred Uranium Mill Tailings Remedial Control Act Title I and Title II, Nuclear Waste Policy Act Section 151 (c), and Decontamination and Decommissioning sites; transfer up to nine additional sites into the program, including either Uranium Mill Tailings Radiation Control Act Title II sites, the Grand Junction Office site, or other sites.

Provide Nuclear Regulatory Commission annual fee payment; manage long-term surveillance and maintenance for Cheney repository, and support subsequent Weldon Spring transfer activities.

AL-031 0 0 5,100

<p>Metrics</p> <p>This project has associated metrics; however, no metrics are reportable in the 3-year budget profile.</p>
<p>Key Milestones</p> <p># FY 2000 inspection, maintenance, and inspection reports for 29 transferred disposal sites (September 2000).</p> <p># FY 2001 inspection, maintenance, and inspection reports for 34 transferred disposal sites (September 2001).</p>

AL032/Off-site Source Recovery Program

The purpose of this program is to establish compliance with Public Law 99-240 with respect to the Department of Energy’s responsibility for acceptance and disposition of unwanted radioactive sealed source devices and material covered by SECTION 3(b)(1) Paragraph (D) of the Act. Establishment of this program fulfills the Department of Energy’s obligation to Congress described in the “Recommendations for Management of Greater Than Class-C Low-Level Radioactive Waste, Report to Congress in response to Public Law 99-240" (February 1987) (DOE/NE-0077) with respect to radioactive sealed sources.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Establishment of this program in FY 2000 as an operational capability at the Los Alamos National Laboratory began the process of reducing risk to public health and safety and the environment posed by unwanted radioactive sealed sources for which no disposition path exists.

- # Re-package approximately 100 sealed sources for on-site storage in drums (approximately 15 drums). The sources will be characterized and packaged to meet the Waste Isolation Pilot Plant Waste Acceptance Criteria.
- # Consolidate approximately 350 radioactive sealed sources from off-site commercial locations into approximately 50 multi-function containers for transport and receipt at the Los Alamos National Laboratory for characterization and storage.
- # Through commercial contractors and the Los Alamos National Laboratory field teams, plan to recover 850 additional excess sealed sources from licensees, consolidate into approximately 85 multi-function containers, and prepare to transfer to the Los Alamos National Laboratory.
- # Complete consolidation of excess Pu-238 pacemakers at custodian's site and prepare for transport to the Los Alamos National Laboratory (approximately 40 multi-function containers).
- # Continue consolidation plan with portable gauge manufacturers for excess Am-241/Be/Cs-137 and Am-241/Be sources.
- # Initiate appropriate National Environmental Policy Act analysis for <500 cubic meters of the Greater Than Class-C sealed source disposal.
- # Initiate establishment of performance objective envelope for moderate depth disposal of <500 cubic meters for sealed sources in multi-function containers.

AL032 1,611 5,333 3,981

Metrics			
Transuranic Waste			
Storage (m ³)	4	15	32
Key Milestones			

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
# Complete Waste Characterization and Certification (September 2000).			
# Recovery of 300 Radioactive Sealed Sources (September 2000).			
Total, Albuquerque	1,611	5,333	9,081

Explanation of Funding Changes From FY 2000 to FY 2001

	FY 2001 vs. FY 2000 (\$000)
AL031 / Long-Term Surveillance and Maintenance Program	
# Increase due to creation of this project under this account (previously funded under PBS AL-024), and transfer of additional sites into this program.	5,100
AL-032 /Off-site Source Recovery Program	
# Funding reduced to accelerate completion of other sites.	-1,352
Total Funding Change, Albuquerque	3,748

Oak Ridge

Mission Supporting Goals and Objectives

Program Mission

There are no FY 2001 activities under this account, therefore, Program Goals, Objectives, and Performance Measures are not described. However, there are FY 1999 and FY 2000 accomplishments and funding information.

Program Goal

In FY 2001, the program goals are consolidated under the Defense Post 2006 Completion account.

Program Objectives

In FY 2001, the program objectives are consolidated under the Defense Post 2006 Completion account.

Performance Measures

All performance measures are consolidated under the Defense Post 2006 Completion account.

Significant Accomplishments and Program Shifts

- # For those facilities which make up the high-ranking and isotopes facilities deactivation programs, continued surveillance and maintenance activities for 27 facilities (FY 1999).
- # At the Tower Shielding Facility, completed relocation of surplus materials from the facility (FY 1999).
- # Completed deactivation of two facilities: Buildings 3026C and 3026D (FY 1999).
- # Continued deactivation activities in Building 3038 (FY 1999).
- # For the Melton Valley Watershed, finalized the feasibility study and proposed plan and issued draft Record of Decision (FY 1999).
- # Completed shipments of tritiated heavy water from the Bulk Shielding Facility (FY 1999).
- # Provide grants to the State of Tennessee through Agreements-in-Principle and the Federal Facilities Act Agreement and funding for the National Metal Recycle Center of Excellence (FY 2000).

- # Repackaged 80,000 curies of Cesium-137 for disposition from Building 3517 (FY 2000).
- # Dispositioned 492 liters of deuterium oxide (Heavy Water) from the Bulk Shielding Facility (FY 1999).
- # Transferred Building 3034 from the Office of Environmental Management to the Office of Science (FY 1999).
- # Surveillance and maintenance required for excess facilities at the Oak Ridge National Laboratory in compliance with Code of Federal Regulations (FY 2000).
- # Complete characterization of Bulk Shielding Reactor pool and contents (FY 2000).
- # Complete demolition of old ventilation ductwork outside Building 3026 (FY 2000).
- # In FY 2001 all activities are consolidated under the Defense Post 2006 Completion account.

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
OR-192 / Non-Recurring Contractor Transition	3,137	0	0
OR-312 / ORNL Waste Operations	13,064	0	0
OR-322 / ORNL Remedial Action	23,465	1,345	0
OR-332 / ORNL Decontamination and Decommissioning	25,343	0	0
OR-342 / ORNL Surveillance and Maintenance	8,232	0	0
OR-382 / ORNL Nuclear Materials and Facilities Stabilization	4,688	2,568	0
OR-892 / Directed Support	1,998	0	0
Total, Oak Ridge	79,927	3,913	0

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Oak Ridge Reservation	3,137	0	0	0	0.0%
Oak Ridge National Laboratory	74,792	3,913	0	-3,913	-100.0%
Oak Ridge Operations Office	1,998	0	0	0	0.0%
Total, Oak Ridge	79,927	3,913	0	-3,913	-100.0%

Site Description

Oak Ridge Reservation

The Oak Ridge Reservation encompasses about 37,000 acres and is comprised of three facilities; the Y-12 Plant, which was a uranium processing facility and now dismantles nuclear weapons components and serves as the nation's storehouse for special nuclear materials; the East Tennessee Technology Park, which was a uranium enrichment facility and is now being transitioned through reindustrialization; and the Oak Ridge National Laboratory, which conducts applied and basic research in energy technologies and in the physical and life sciences.

Oak Ridge National Laboratory

Activities carried out at the Oak Ridge National Laboratory historically have supported both the defense production operations and civilian energy research effort. This group of facilities requires cleanup resulting from a variety of research and development activities, which were supported from past DOE programs and many facilities were supported by multiple programs over a long period of time.

The Oak Ridge National Laboratory currently conducts applied and basic research in energy technologies and the physical and life sciences. Transuranic, mixed low-level, hazardous and sanitary, and industrial waste are managed at the three Oak Ridge Reservation facilities. Although the operations are different, the waste generated from these operations is essentially the same.

Due to past efforts conducted, funding for annual assessment/cleanup has been split between two appropriation accounts; in FY 2001 the support will be funded under the Defense Environmental Restoration and Waste Management Appropriation.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Oak Ridge Operations Office, is managed through an incentivized integrated contract, with fixed-price subcontracts, to assure the most cost efficient service to the Government.

OR-192 / Non-Recurring Contractor Transition

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Beginning in FY 2000 the scope of work associated with this PBS is funded in PBS OR-191 in the Defense Post 2006 Completion appropriation.

OR-192	3,137	0	0
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OR-312 / ORNL Waste Operations

Beginning in FY 2000 the scope of work associated with this PBS is funded in PBS OR-311 in the Defense Post 2006 Completion appropriation.

OR-312	13,064	0	0
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OR-322 / ORNL Remedial Action

Beginning in FY 2001 the full scope of work associated with this PBS is funded in PBS OR-321 in the Defense Post 2006 Completion appropriation.

OR-322	23,465	1,345	0
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OR-332 / ORNL Decontamination and Decommissioning

Beginning in FY 2000 the scope of work associated with this PBS is funded in PBS OR-331 in the Defense Post 2006 Completion appropriation.

OR-332	25,343	0	0
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OR-342 / ORNL Surveillance and Maintenance

Beginning in FY 2000 the scope of work associated with this PBS is funded in PBS OR-341 in the Defense Post 2006 Completion appropriation.

OR-342	8,232	0	0
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OR-382 / ORNL Nuclear Materials and Facilities Stabilization

Beginning in FY 2001, the scope of work associated with this PBS is funded in PBS OR-381 in the Defense Post 2006 Completion appropriation.

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
OR-382	4,688	2,568	0
OR-892 / Directed Support			
# Beginning in FY 2000, the scope of work associated with this PBS is funded in PBS OR-891 in the Defense Post 2006 Completion appropriation and PBS OR-893 in the Uranium D&D Fund.			
OR-892	1,998	0	0
Total, Oak Ridge	<u>66,863</u>	<u>3,913</u>	<u>0</u>

Explanation of Funding Changes From FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

OR-322 / ORNL Remedial Action

Decrease is a result of consolidating the Oak Ridge National Laboratory remedial actions activities under the Defense Post 2006 Completion appropriation (PBS OR-321). -1,345

OR-382 / ORNL Nuclear Materials and Facilities Stabilization

Decrease is a result of consolidating the Oak Ridge National Laboratory nuclear materials and stabilization activities under the Defense Post 2006 Completion appropriation (PBS OR-381). -2,568

Total Funding Change, Oak Ridge ??

Oakland

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management (EM) Post 2006 Completion program managed through the Oakland Operations Office is to plan and implement remediation and waste treatment, storage, and disposal activities at two sites. These sites include the Energy Technology Engineering Center, and the General Electric Vallecitos Nuclear Center. These two sites will be returned to the landowners upon completion of cleanup work. The Non-Defense account also includes the administration of grants at the Oakland Operations Office.

Program Goal

Environmental Management's programmatic goals include ensuring operations, facilities and contaminated sites pose no undue risk to the public, worker health and safety; maintaining compliance with applicable environmental laws; and managing risks associated with current and prior DOE operations. Another programmatic goal is to have cleanup completed at the Energy Technology Engineering Center by FY 2007 and General Electric by FY 2008.

Program Objectives

The principle program objective is to assess, remediate, decontaminate and decommission contaminated sites and facilities; characterize, treat, minimize, store, and dispose of hazardous and radioactive waste; and develop, demonstrate, test and evaluate new cleanup technologies. These program activities are conducted taking an integrated approach to assessing work and meeting schedules, while balancing risk, mortgage reduction, compliance, cost efficiencies, stakeholder input, and implementation of enhanced performance mechanisms. Cleanup at the Energy Technology Engineering Center and General Electric will extend beyond FY 2006 and all legacy waste will be characterized and shipped off-site once cleanup is complete. Long-term surveillance and maintenance of implemented remedial actions at the Energy Technology Engineering Center (e.g., pump and treat facilities) will be assumed by the land owners after cleanup and waste disposal is complete.

The Oakland Operations Office has plans for the use of innovative technologies at several of its installations. For example, a new remediation technology using water-vapor and nitrogen was chosen for cleaning the sodium loop/systems at the Energy Technology Engineering Center. This technology was selected because it was proven to be a cost-effective method for the removal of sodium and will not generate hazardous waste.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table; as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

- # Continue decontamination and decommissioning of scheduled facilities at the Energy Technology Engineering Center (FY 2001).
- # Continue landlord activities (i.e., general and administrative support, rent) and sodium disposal at the Energy Technology Engineering Center (FY 2001).
- # Continue surveillance and maintenance and initiate characterization activities at General Electric (FY 2001).
- # Dispose of 500 cubic meters of low-level waste from the Energy Technology Engineering Center (FY 2001).

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
OK-007LT / ETEC Remediation	0	0	9,300
OK-009LT / ETEC Landlord	0	0	4,700
OK-013LT / General Electric D&D	0	0	2,000
OK-040LT / Program Management and State Grants	0	0	10
OK-042LT / ETEC Waste Management	0	0	3,500
Total, Oakland	0	0	19,510

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Energy Technology Engineering Center	0	0	17,500	17,500	>999.9
General Electric	0	0	2,000	2,000	>999.9

Oakland Operations Office	0	0	10	10	>999.9
Total, Oakland	0	0	19,510	19,510	>999.9

Metrics Summary

	FY 1999	FY 2000	FY 2001
Remedial Actions/Release Sites			
Assessments	0	0	3
Facility Decommissioning			
Assessments	0	0	11
Cleanups	0	0	2
Mixed Low-Level Waste			
Treatment (m ³)	0	0	20
Disposal (m ³)	0	0	5

Site Description

Energy Technology Engineering Center

The Energy Technology Engineering Center is a DOE facility located on 90 acres of land leased from Boeing North America Corporation in Simi Valley, California. The environmental restoration activities at the Energy Technology Engineering Center are to remediate contaminated groundwater, complete decontamination and decommissioning of several remaining radiological facilities, deactivate and clean up existing sodium facilities, provide landlord functions, and perform waste characterization and off-site disposal. Overall site cleanup is projected to be completed by FY 2007 at which time it will be returned to the landowners.

General Electric

The General Electric site is a privately-owned site located near Pleasanton, California. Activities are focused on cleanup of a High-Level Hot Cell and irradiated reactor components and a glove box enclosure. In FY 1999, surveillance, maintenance and characterization activities will continue. The General Electric site is comprised of two facilities and cleanup is planned to be completed by FY 2008. Once facility cleanup is completed it will be returned to the landowners for future use.

Oakland Operations Office

The Oakland Operations Office and the State of California have an agreed to statement of work for grant funds. Oakland Operations Office awards and manages grants provided to the state for oversight activities which include, participation in meetings, review of documents, and involvement with the public.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Energy Technology Engineering Center is managed through a cost and performance incentivized contract to assure the most cost-effective services to the government. The scope planned for FY 2001 at this site has been reviewed and is appropriate to meet the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure*. The project work at the Energy Technology Engineering Center has had an independent cost review of the scope (e.g. the Corps of Engineers and Oakland's in-house non-programmatic cost estimating staff). The funds requested for FY 2001 for this site are appropriate to perform the activities based on historical level of effort costs.

OK-007LT / Energy Technology Engineering Center Remediation

This project involves: 1) cleanup of contaminated release sites; 2) decontamination and decommissioning of radioactive, and chemically contaminated facilities at the Energy Technology Engineering Center for eventual release to Boeing; and 3) remediation of contaminated groundwater.

- # Complete decontamination and decommissioning of Building 4059.
- # Continue decontamination and decommissioning of the Hazardous Waste Management Facility.

OK-007LT	0	0	9,300
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Metrics			
Remedial Actions/Release Sites			
Assessments	0	0	3

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
Facility Decommissioning			
Assessments	0	0	9
Cleanups	0	0	2

**OK-009LT / Energy Technology Engineering Center
Landlord**

This project accomplishes all infrastructure management and surveillance and maintenance activities at the Energy Technology Engineering Center. Activities include: (1) landlord general support, such as rent, environmental support, permits, security and fire protection; (2) surveillance and maintenance (laboratory, facilities, records, and other support services). Landlord responsibilities for the Energy Technology Engineering Center were transferred to EM in FY 1997 from Nuclear Energy.

Equipment divestiture.

Records retention.

Deactivation of facilities.

OK-009LT	0	0	4,700
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**OK-013LT / General Electric Decontamination and
Decommissioning (Environmental Restoration)**

This project allows for the decontamination of Hot Cell #4 located in the Radioactive Materials Laboratory in Building 102 at the General Electric Vallecitos site near Pleasanton, California. Through negotiations, issues related to cost sharing percentages between DOE and General Electric, contract pricing, and allowances for past costs will be addressed.

Provides for DOE surveillance and maintenance costs.

Initiate characterization activities.

OK-013LT	0	0	2,000
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Metrics			
Facility Decontamination			
Assessment	0	0	2
Key Milestones			

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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# Begin characterization activities (June 2000).			
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OK-040LT / Program Management and State Grants

This project provides funding for the Oakland Operations Office to support and manage state grants.

- # Award funds to the Regional Water Quality Control Board and/or the Department of Toxic Substance Control for oversight activities at the Energy Technology Engineering Center and General Electric as requested.

OK-040LT	0	0	10
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OK-042LT / ETEC Waste Management

This project accomplishes all necessary activities to manage and implement a waste management program for ongoing and planned environmental cleanup activities at the Energy Technology Engineering Center site. This project funds an existing facility that will provide centralized waste management of radioactive, and mixed waste generated from environmental cleanup activities and transportation of wastes for its final disposition. Funded activities include the operation of the Radioactive Material Handling Facility.

- # Possible shipment of transuranic waste to an interim site.
- # Shipment of low-level waste from B4059 demolition.
- # Shipment of mixed low-level waste
- # Completion of Site Treatment Plan milestones

OK-042 LT	0	0	3,500
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Metrics			
Transuranic Waste			
Storage (m ³)	0	0	11
Mixed Low-Level Waste			
Storage (m ³)	0	0	240
Treatment (m ³)	0	0	20
Commercial Disposal (m ³)	0	0	5
Low-Level Waste			
Storage (m ³)	0	0	1,200

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
Shipped to DOE Disposal Site (m ³)	0	0	500
Total, Oakland	0	0	19,510

Explanation of Funding Changes From FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

OK-007LT / ETEC Remediation

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure. A decrease in funding for FY 2001 is due to program management and support tasks being transferred to PBS OK-009LT. 9,300

OK-009LT / ETEC Landlord

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure. The increase in FY 2001 funding is a result of the program management and support activities transferred from PBS OK-007LT to demolish more office buildings and divest large items of equipment. 4,700

OK-013LT / General Electric D&D

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure. The increased funding will provide for additional surveillance and maintenance costs and to initiate characterization activities. 2,000

OK-040LT / Program Management and State Grants

The most recent estimates indicate that a small amount of funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure. 10

OK-042LT / ETEC Waste Management

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure. 3,500

Total Funding Change, Oakland 19,510

Ohio

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Post 2006 Environmental Management program managed through the Ohio Field Office, is to support cleanup activities at the West Valley Demonstration Project in the State of New York.

The most recent estimates indicate that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved from the Non-Defense Site Closure account to the Non-Defense Post 2006 account, consistent with the budget structure.

Program Goal

The goal for the West Valley Demonstration Project is to continue the vitrification/solidification of high-level waste tank heel material, preparation for decontamination and decommissioning of the site, and the transition from maintaining safe storage of spent nuclear fuel to shipment of the fuel from the West Valley Site. The estimated completion date for the West Valley Demonstration Project is FY 2015 or beyond, depending upon the funding scenario and several programmatic uncertainties discussed below.

Program Objectives

The West Valley Demonstration Project will be returned to New York State upon completion of the DOE's responsibilities in accordance with the West Valley Demonstration Project Act. The estimated completion date for the West Valley Demonstration Project is FY 2015 or beyond. This reflects the uncertainty related to the schedule for implementing the various alternatives being analyzed for the future Environmental Impact Statement/Record of Decision, which will define the requirements for the out year scope of work and project completion, along with other challenges, such as: the ability to transfer the high-level waste canisters to an interim storage location; ability to transfer transuranic waste to an interim storage location; the shipment of spent nuclear fuel to Idaho; completion of the Record of Decision and issuance, by the Nuclear Regulatory Commission, of final decontamination and decommissioning criteria by FY 2001; and resolution of the responsibility issues between DOE and New York State.

Performance Measures

Performance Measures are provided at an aggregate level after the Funding by Site table; as well as at a project level, in the Detailed Program Justification.

The Executive Budget Summary and the Metrics Summary provide a consistent set of high-level performance measures. The more detailed project-level justification provides a description of significant activities for each project including detailed project performance measures and key project milestones, as applicable.

Significant Accomplishments and Program Shifts

West Valley Demonstration Project

- # Reflects FY 2001 accomplishments only, FY 1999 and FY 2000 are included in the Non-Defense Site Closure appropriation.
- # Complete vitrification of high-level waste tank heels at West Valley, producing approximately five canisters of solidified high-level waste; complete installation of high-level waste tank heel removal equipment; shutdown of vitrification facility and perform preparation activities for deactivation; continue site safety functions; complete final design for remote handled waste facility; initiate and complete shipments of West Valley spent nuclear fuel to the Idaho National Engineering and Environmental Laboratory (FY 2001).

Significant Shifts

The West Valley Demonstration Project is now estimated to be completed in FY 2015 or beyond with a range of total estimated costs from \$3,500,000,000 to \$4,000,000,000, dependent upon the final remediation decision. The current estimated completion date of FY 2015 may be revised to FY 2023 to be consistent with significant project completion decisions regarding extended on-site interim storage of high-level canisters. When the Environmental Impact Statement/Record of Decision and decontamination and decommissioning criteria are published, a definitive work scope, cost estimate, and schedule will be developed and validated. The most recent estimate indicates that funding will be necessary beyond FY 2006 for project completion. Therefore, this project has been moved to the Post 2006 account, consistent with the budget structure.

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
OH-WV-01LT / HLW Vitrification and Tank Heel High Activity Waste Processing	0	0	54,000
OH-WV-02LT / Site Transition, Decommissioning and Project Completion	0	0	46,153
OH-WV-03LT / Spent Nuclear Fuel	0	0	7,200
OH-WV-04LT / Project Management/Site Support	0	0	0
Total, Ohio	0^a	0^a	107,353

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
West Valley Demonstration Project	0	0	107,353	107,353	>999.9%
Total, Ohio	0	0	107,353	107,353	>999.9%

Metrics Summary

	FY 1999	FY 2000	FY 2001
High-Level Waste			
Canisters Produced	0	0	5
Mixed Low-Level Waste			
Treatment (m ³)	0	0	5
Low-Level Waste			
Disposal (m ³)	0	0	425
Spent Nuclear Fuel			
Prepared and Shipped for Consolidation (MTHM)	0.0	0.0	26.3

^a FY 1999/FY 2000 funding is in the Non-Defense Closure Account for West Valley Demonstration Project.

Site Description

West Valley Demonstration Project

Previously budgeted for under the Non-Defense Site Closure Appropriation. The West Valley Demonstration Project is located at the Western New York Nuclear Service Center near West Valley, New York. The Center was developed by a private company with government support to process commercial spent nuclear fuel to extract plutonium and uranium and operated from 1966 to 1972.

The West Valley Demonstration Project includes all the activities undertaken to carry out high-level waste solidification, including: (1) preparation of the Western New York Nuclear Service Center's premises and facilities to accommodate the solidification project, including decontamination of existing facilities and equipment; (2) removal of the waste from underground storage tanks; (3) development, design, construction, and operation of systems and necessary supporting facilities for the solidification of waste; (4) acquisition of containers for permanent disposal of the solidified waste; (5) temporary storage of the solidified waste, followed by transportation to an appropriate Federal repository for permanent disposal; (6) decontamination and decommissioning of the waste tanks and facilities, material and hardware used in carrying out the solidification of the wastes; and (7) disposal of low-level and transuranic wastes produced from project activities.

The principal operation at West Valley is currently the solidification of approximately 2,200 m³ of liquid high-level waste into borosilicate glass using vitrification. The primary vitrification campaign began in June 1996 and was completed in June 1998. Vitrification of the high-level waste tank heels is underway and will continue through FY 2001.

In preparation for initiating the vitrification program, the entire inventory of liquid high-level waste was pretreated between 1988 and 1995. This processing produced 20,000 drums containing low-level waste liquid stabilized in cement. These drums are being temporarily stored on-site pending a decision on permanent disposal relative to the Record of Decision for project completion.

Following the vitrification of the high-level waste, the buildings and other facilities will be decontaminated and decommissioned, based on the results of an Environmental Impact Statement and Record of Decision for the completion of the project. The project cost is estimated to be in the range of \$3,500,000,000 to \$4,000,000,000, dependent upon the final remediation decision. This estimate will be refined after the Environmental Impact Statement/Record of Decision is published.

Another critical element of the EM program at West Valley is the safe management of 125 spent nuclear fuel elements which are stored at the site. Environmental Management will continue surveillance and maintenance of the spent fuel facility to ensure safe storage until the fuel can be shipped to the Idaho National Engineering and Environmental Laboratory (currently planned for 2001).

Achieving project completion depends upon the Department's ability to implement the decisions made in the Environmental Impact Statement Record of Decision, as well as early identification of receiver sites and

stakeholder agreements to accept West Valley Demonstration Project transuranic waste, and funding support. The New York State Energy Research and Development Authority and DOE are formulating a preferred alternative for project completion and closure or long-term management of the site that incorporates stakeholders' input, including the Citizens Task Force's recommendations. Selection of a preferred alternative and subsequent Record of Decision will determine final disposition of the wastes and facilities at the West Valley site and allow for the return of the site to New York State.

Although substantial progress was made in FY 1999 toward development of an Environmental Impact Statement preferred alternative and resolution of responsibility issues with New York State Energy Research and Development Authority, completion of these items is now expected in FY 2000. A revised milestone date for publishing the Environmental Impact Statement Record of Decision is under development.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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The Ohio projects are managed through incentivized contracts and utilize fixed-price subcontracts to assure the most efficient service to the Government. This scope planned for FY 2001 has been reviewed and is consistent with the goals of the site as outlined in the *Accelerating Cleanup: Path to Closure*. The Ohio projects included in this section of the budget have had external, independent reviews by such organizations as Corps of Engineers, Deloitte and Touche Inc., and Hill International of their baseline scopes and costs. The scope and funding requested for FY 2001 are consistent with the activities that have been reviewed.

OH-WV-01LT / High-Level Waste Vitrification and Tank Heel High Activity Waste Processing

The high-level waste program at West Valley encompasses the solidification of approximately 2,200 m³ of liquid high-level waste into borosilicate glass using vitrification. Liquid high-level waste vitrification operations were initiated in June 1996, and the primary vitrification campaign was completed in the third quarter of FY 1998.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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This represents a significant achievement for DOE and a critical activity toward completion of the West Valley Demonstration Project . After high-level waste liquid processing, the project continues to use vitrification to process the high-level waste tank heels and residual high activity waste. Planning and preparatory work for tank closure, and the cutoff of operations for vitrification is underway while vitrification is continuing.

There is a high base cost to operate and maintain the vitrification process and the innovative technology for tank heels extraction adds to the cost. This activity, including the deactivation of the vitrification processing facility, will continue into FY 2002.

- # Continue operation of vitrification facility to treat approximately 69 m³ of high-level waste tank heels and residuals, reduce the remaining inventory to near 0 m³; which will result in the production of approximately five to eight canisters of high-level waste for interim storage.
- # Complete installation of high-level waste tank heel removal and inspection of equipment.
- # Begin implementation of the strategies developed for completion of vitrification and cutoff of tanks and facilities used for vitrification.
- # Perform limited deployment of Vitrification Expended Materials system to retrieve and containerize high activity waste by-products of Vitrification Operations in preparation for Vitrification Facility deactivation in FY 2002.

OH-WV-01LT	0	0	54,000
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Metrics			
High-Level Waste			
Treatment (m ³)	0	0	69
Key Milestones			
# Complete West Valley high-level waste tank heels and residuals vitrification processing (September 2001).			

OH-WV-02LT / Site Transition, Decommissioning, and Project Completion

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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These activities are required to remove high-level waste canisters and transuranic waste from project facilities. The activities are also required to dispose of low-level waste in accordance with the West Valley Demonstration Project Act and the Stipulation of Compromise as directed by the Record of Decision, implementation of other related activities associated with the Record of Decision, and completion of the remaining project responsibilities and return the site to New York State.

The State of New York and DOE are working together to formulate a preferred alternative with input from the public, including the Citizens Task Force. The subsequent Record of Decision will provide the decision to implement the preferred alternative. Outyear work scope has been revised to include modifications to existing canister storage location in the main process building or investigation of other storage options. These activities run concurrently with high-level waste vitrification processing and tank residual high activity waste processing with estimated completion through FY 2015 or beyond dependent upon Environmental Impact Statement/Record of Decision alternative selected and funding support.

- # Continue routine site safety functions such as radioactive groundwater plume migration control.
- # Continue mixed low-level, low-level, and high-level waste storage activities and facility stabilization repairs.
- # Complete final design for the Remote Handled Waste Facility, initiate long lead equipment and preliminary site development, and continue Head End Cell equipment installation and system modifications.
- # Continue low-level waste characterization and shipping activities.
- # Add approximately five high-level waste disposal ready canisters to the inventory in the interim on-site storage facility.

OH-WV-02LT	0	0	46,153
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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	FY 1999	FY 2000	FY 2001
Metrics			
High-Level Waste			
Canisters Produced	0	0	5
Low-Level Waste			
Commercial Disposal (m ³)	0	0	425
Storage (m ³)	0	0	16,392
Mixed Low-Level Waste (m³)			
Storage	0	0	164
Treatment	0	0	5
Transuranic Waste			
Storage (m ³)	0	0	547
Key Milestones			
#	Begin mobilization of construction phase for the Remote-Handled Waste Facility (June 2001).		
#	Begin Process Mechanical Cell waste removal (September 2001).		
#	Ship off-site up to 15,000 cubic feet of Class A low-level waste for disposal (September 2001).		

OH-WV-03LT / Spent Nuclear Fuel

The Fuel Receiving and Storage Facility at West Valley contains 125 irradiated commercial spent nuclear fuel elements that must be transferred off-site during calendar year 2001 (per agreement with the State of Idaho and the State of New York). Initiate shipment to Idaho National Engineering and Environmental Laboratory in FY 2001 to avoid penalties and court action by New York State regulators.

- # Ensure rail cars for shipment of the spent fuel assemblies are ready.

- # Convene an operational readiness review board to determine readiness of the transport activities. Upon approval from DOE/Ohio to commence activities, the Idaho National Engineering and Environmental Laboratory should declare transportation and operational readiness to receive West Valley spent nuclear fuel.

- # Begin and complete shipping activities with two shipments expected to occur during April FY 2001 and September FY 2001.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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Support preparation and fuel receipt activities at the Idaho National Engineering and Environmental Laboratory.

OH-WV-03LT	0	0	7,200
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Metrics			
Spent Nuclear Fuel			
Prepared and Shipped for Consolidation (MTHM)	0.0	0.0	26.3
Key Milestones			
# Preparation/approvals for spent nuclear fuel shipments (March 2001).			

OH-WV-04LT / Project Management/Site Support

The activities in this PBS have been distributed to the three mission related PBSs.

OH-WV-04LT	0	0	0
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Total, Ohio	0	0	107,353
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Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

OH-WV-01LT / High Level Waste Vitrification and Tank Heel High Activity Waste Processing

Increase reflects the transfer of project from the Non-Defense Site Closure appropriation. Actual net increase for these activities is \$16,221,000 for additional high-level waste tank heel equipment and modifications and the transfer of a portion of project management/site support activities from PBS OH-WV-04LT.

54,000

OH-WV-02LT / Site Transition, Decommissioning and Project Completion

Increase reflects the transfer of project from the Non-Defense Site Closure appropriation. Actual net increase for these activities is \$18,053,000, which includes the transfer of a portion of project management/site support activities from PBS OH-WV-04.

46,153

FY 2001 vs. FY 2000 (\$000)

OH-WV-03LT / Spent Nuclear Fuel

Decrease reflects the transfer of project from the Non-Defense Site Closure appropriation. Actual net decrease for these activities is \$500,000, due to completion of readiness efforts for shipment of spent nuclear fuel. This project also includes a portion of project management/site support activities transferred from PBS OH-WV-04.

7,200

Total Funding Change, Ohio

107,353

Multi-Site

Mission Supporting Goals and Objectives

Program Mission

The mission of the Non-Defense Environmental Management Post 2006 Completion account carried out by the Multi-Site activity is to support the Packaging Certification and Transportation efforts. The Environmental Management program is being responsive to the General Accounting Office and others who have pushed for greater emphasis on national focus for the EM programs.

Program Goal

The overall goal of the Multi-Site activity is to better coordinate EM-wide and Department of Energy (DOE)-wide program efforts and avoid overlaps and inconsistencies.

The mission of the Packaging Certification program is to support the protection of people and property from the potential consequences of normal and accident conditions of transport involving hazardous materials. The goals to support this mission are:

- < Improve safety of packages used to transport hazardous materials through a program of design reviews and performance tests, and quality verification that satisfy internal operations and organizations external to the Department.
- < Improve existing and develop new processes to maximize the efficiencies of these reviews and tests. Maintain an open and effective system of communication and coordination both internal and external to the Department.
- < Ensure the package safety policies protect workers, the public, and the environment while providing program flexibility in accomplishing Departmental missions.
- < Ensure that the Packaging Certification and Safety Program is the Department's technical knowledge and analysis center for hazards classifications, design reviews, package training support and safety requirements.
- < Ensure that package safety policies are coordinated with all affected customers and provide sufficient clarity of guidance to be correctly implemented.

Program Objectives

The Multi-Site activities focus' national attention on areas that support Environmental Management-wide goals and planned efforts. Many of these activities cut across the entire Department of Energy complex and operations.

Performance Measures

There are no Performance Measures associated with the Multi-Site activities.

Significant Accomplishments and Program Shifts

Technical Support to ER

Provided technical support for Environmental Management and Department of Energy initiatives, including performance measure activities; project baseline review/analysis efforts; strategic/management plans; and other needed analysis efforts (FY 1999/FY 2000).

Packaging Certification

- # Continue efforts to reduce the backlog of safety reviews for packagings (FY 1999/FY 2000/FY 2001).
- # Represent the Department of Energy in the United States delegation supporting international transportation safety and packaging certification regulations (FY 1999/FY 2000).

Pollution Prevention

Maintained pollution prevention infrastructure at the Energy Technology Engineering Center, Lawrence Berkeley National Laboratory, and the Stanford Linear Accelerator Center to comply with the Resource Conservation and Recovery Act and the California pollution prevention requirements (FY 1999/FY 2000).

Funding Schedule

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Current Appropriation	FY 2001 Request
HQ-2-00 / Technical Support to ER	5,382	5,824	0
HQ-PC-001 / Packaging Certification	3,756	3,681	3,700
OPS/HQ-PP-N / Pollution Prevention	100	99	0
Total, Multi-Site	9,238	9,604	3,700

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	\$ Change	% Change
Multi-Site	9,238	9,604	3,700	-5,904	-61.5%
Total, Multi-Site	9,238	9,604	3,700	-5,904	-61.5%

Site Description

Within the Multi-Site budget, the Packaging Certification and Transportation Safety program activities provide for developing, coordinating, and implementing policies, standards, and guidance for aviation, maritime, rail, highway, pipeline, and hazardous materials safety for the Department. Under the authority provided by the United States Department of Transportation in 49 CFR, this program certifies Fissile and Type B packages for the transportation of radioactive materials for the Department. Evaluation and analysis of the Department of Energy line organizations' safety analysis reports for packaging are performed, in addition to providing external coordination between the Government and other governmental, commercial, and international bodies regarding packaging certification and transportation safety systems.

The Pollution Prevention program supports activities for the entire Department. In FY 2001, these program activities are being supported in the Oakland Operations Office budget.

Detailed Program Justification

(dollars in thousands)

FY 1999	FY 2000	FY 2001

The scope planned for FY 2001 has been reviewed and is appropriate to meet the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure* report. The funds requested for FY 2001 are appropriate to perform the activities based on a historical level of effort cost. No quantifiable corporate performance measures are associated with these projects.

(dollars in thousands)

FY 1999	FY 2000	FY 2001
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HQ-2-00 / Technical Support to ER

The activities funded by this project included a variety of crosscutting efforts that support required environmental restoration and EM initiatives. Technical support was provided in the areas of performance measure tracking; information/data management integration; project review/analysis; and other cleanup related areas needing support.

No activity.

HQ-2-00	5,382	5,824	0
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HQ-PC-001 / Packaging Certification

The Packaging Certification and Transportation Safety program supports the protection of people and property from the potential consequences of normal and accidental conditions of transport involving hazardous materials.

This program addresses the need for robust packages that provide containment in the event of a transportation incident or accident and the concerns of internal and external stakeholders. Activities also include developing, coordinating, and implementing policies, standards, and guidance related to aviation, maritime, rail, highway, pipeline, and hazardous materials safety.

This program performs evaluations and analyses of safety analysis reports for packaging; providing external coordination between the Department and other governmental, commercial, and international bodies regarding transportation safety and packaging certification. The program participates in the development of transportation safety.

Approve more than 35 packages and conducted six audits.

HQ-PC-001	3,756	3,681	3,700
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(dollars in thousands)

FY 1999	FY 2000	FY 2001
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HQ/OPS-PP-N / Pollution Prevention

This program provided non-defense resources to the Department of Energy Oakland Operations Office. In FY 2001, the Pollution Prevention program is transferred to the Oakland Operations Office.

No activity.

OPS/HQ-PP-N	100	99	0
Total Multi-Site	<u>9,238</u>	<u>9,604</u>	<u>3,700</u>

Explanation of Funding Changes from FY 2000 to FY 2001

FY 2001 vs. FY 2000 (\$000)

HQ-2-00 / Technical Support to ER

No activity is being supported in this budget account for technical support to environmental restoration activities. -5,824

HQ-PC-001 / Packaging Certification

No significant changes. 19

HQ-OPS-PP-N / Pollution Prevention

These program activities are transferred to the Oakland Operations Office. -99

Total Funding Change, Multi-Site -5,904