

# **Defense Facilities Closure Projects**

## **Proposed Appropriation Language**

For expenses of the Department of Energy to accelerate the closure of defense environmental management sites, including the purchase, construction and acquisition of plant and capital equipment and other necessary expenses, [\$1,038,240,000] *\$1,054,492,000*, to remain available until expended.

*Further, for the foregoing purposes, \$1,054,492,000 to become available October 1, 2000, to remain available until expended. (Energy and Water Development Appropriations Act, 1999.)*

## **Explanation of Change**

Changes in appropriation language provides for two year appropriation as required for Defense appropriations.

# Defense Facilities Closure Projects

## Site Closure

### Program Mission

The Defense Facilities Closure Projects appropriation has a single account, Site Closure, which includes sites where the Environmental Management (EM) program plans to complete its DOE mission by the end of FY 2006. This account includes funding for projects under the Ohio Field Office in Ohio (i.e., Fernald Environmental Management, Miamisburg Environmental Management, the Ashtabula Environmental Management, and the Columbus Environmental Management projects), and the Rocky Flats Environmental Technology Site in Colorado.

In August 1997, the Secretary of Energy designated the Rocky Flats, Fernald, and Miamisburg sites as pilot sites for accelerated closure. The Energy and Water Development Appropriation Act for Fiscal Year 1998 expanded the EM Closure appropriation account to include all funding for the Fernald and Rocky Flats sites to encourage the acceleration of their closure. The Department of Energy included the remaining Ohio sites within this account in the FY 1999 budget request.

### Program Goal

Accelerating cleanup and project completion is a central goal of the EM program. This goal is part of the strategies identified in the *Accelerating Cleanup: Paths to Closure* document, whereby all EM sites are working aggressively to reduce outyear costs by completing projects as soon and as efficiently as possible, thereby reducing life-cycle costs and schedules. 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, and the sites may be available for some alternative use.

### Program Objectives

- # Continue to accelerate cleanup efforts at sites and realize substantial savings by the resulting reduction in long-term program costs and ongoing support costs.
- # Continue to sequence work at the Ohio sites to focus activities on the larger sites where most cost savings can be obtained through acceleration (Fernald and Miamisburg), while utilizing the remaining funding to focus on sequencing the completion of smaller sites.

## Performance Measures

EM has moved aggressively towards developing and implementing a performance-based budget that clearly demonstrates the program and project results expected with the resources requested. Building upon past experience, the FY 2000 budget was enhanced by aligning performance measures by project within the specific appropriation and program accounts. These performance measures can be found in the site details that follow.

## Significant Accomplishments and Program Shifts

The FY 2000 budget request fully reflects the project-oriented structure that EM has developed as a key component to accelerate cleanup and reduce costs. All EM activities have been organized into projects which have a defined scope, schedule, cost, and end state. Through the strategies identified in the *Accelerating Cleanup: Paths to Closure* document, EM sites are working to sequence projects and track progress, thereby reducing life-cycle costs and schedules. Specific accomplishments and program shifts may be found in the site details that follow.

### Funding Profile

(dollars in thousands)

	FY 1998 Current Appropriation	FY 1999 Original Appropriation	FY 1999 Adjustments	FY 1999 Current Appropriation	FY 2000 Request
Site Closure .....	995,885	1,038,240	0	1,038,240	1,054,492
Subtotal, Defense Facilities Closure .....	995,885	1,038,240	0	1,038,240	1,054,492
Y2K Supplemental .....	0	0	3,500	3,500	0
Total, Defense Facilities Closure Projects .....	995,885	1,038,240	3,500	1,041,740	1,054,492

#### 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 105-245, The Energy and Water Development Appropriations Act, Fiscal Year 1999

Public Law 105-261, Strom Thurmond National Defense Authorization Act For Fiscal Year 1999

## Funding by Site

(dollars in thousands)

	FY 1998	FY 1999	FY 2000	\$ Change	% Change
Ohio Field Office .....	363,785	381,040	397,282	16,242	4.3%
Rocky Flats Field Office .....	632,100	657,200	657,210	10	>999.9%
Total, Site Closure .....	995,885	1,038,240	1,054,492	16,252	1.6%

# Ohio

## Mission Supporting Goals and Objectives

### Program Mission

The mission of the Defense Facilities Site Closure Environmental Management program managed through the Ohio Field Office is to support cleanup activities at four sites in the State of Ohio. These sites are: the Fernald Environmental Management Project; the Miamisburg Environmental Management Project; the Columbus Environmental Management Project; and the Ashtabula Environmental Management Project sites. The Ohio Field Office manages, coordinates, tracks, and assists in the implementation of the cleanup program among the various sites.

### Program Goal

The goal of the Ohio Field Office sites is the transfer of real property to the state or local communities by completing environmental restoration and waste management projects by 2006, with a minimal but adequate level of long-term stewardship continuing after that point.

### Program Objectives

The objectives for the Ohio sites will be to continue safe shutdown; decontaminate and decommission buildings; disposition contaminated soil, debris and waste material to an off-site disposal cell or on-site, if appropriate; and accelerate groundwater cleanup through innovative technology deployment. This initiative depends on a variety of factors, including community needs, regulatory requirements, and technical feasibility. The Ashtabula Environmental Management Project site will be released for unrestricted use and returned to RMI Company; the Columbus Environmental Management Project site will be transferred to Battelle Laboratories for unrestricted use; the Fernald Environmental Management Project site will be completed and placed under institutional control; and the Miamisburg Environmental Management Project site will be transferred to the City of Miamisburg.

### 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.

## **Significant Accomplishments and Program Shifts**

### **Ashtabula Environmental Management Project**

- # Initiated design work, prepared for construction of the Soil Cleaning Plant, (FY 1998); complete construction and initiate operation (FY 1999) for processing Phase I contaminated soil.
- # Initiated building deactivation (FY 1998) and initiate remediation (FY 1999).
- # Completed Area D soil remediation (FY 1998) and continue low level waste and legacy waste shipments for disposal (FY 1999).
- # Complete the remediation of three buildings at the Ashtabula site (RMI) and transport and dispose of 885 cubic meters of waste. In addition, innovative technologies are being deployed that will accelerate the cleanup of groundwater and soil by approximately two years (FY 2000)

### **Columbus Environmental Management Project**

- # Initiated (FY 1998) and continue (FY 1999) transuranic waste processing.
- # Initiated interior decontamination of the West Jefferson building JN-1 (FY 1998); continue efforts (FY 1999), including material and equipment removal.
- # Provided required core environmental and surveillance and maintenance activities, which included facility structural/hazard analysis of major building systems (FY 1998).
- # Initiated (FY 1998) and continue (FY 1999) shipments of low level waste.
- # Initiate the decontamination of two buildings at Battelle Columbus Lab including transuranic waste processing and associated equipment removal; and remediate soils from external areas at the site (FY 2000).

### **Fernald Environmental Management Project**

- # Initiated construction of South Field Extraction System Pipeline (FY 1998) and began excavation of contaminated soil (FY 1998).
- # Completed Advanced Waste Water Treatment expansion (FY 1998) and initiate treatment of site waste water and groundwater monitoring (FY 1999).
- # Completed construction of Sewage Treatment Plant (FY 1998).
- # Completed onsite rail construction, offsite rail upgrade, and purchased unit trains for Waste Pits Project remediation (FY 1998).
- # Completed Plant 2, 3, and 8 safe shutdown (FY 1998).
- # Continue safe storage of nuclear materials onsite and continue disposition of remaining low enriched nuclear material and depleted inventories (FY 1998/FY 1999).
- # Continue low level and mixed waste disposition (FY 1998/FY 1999).
- # Initiate and complete excavation and removal of the inactive flyash pile excavation (FY 1999).

- # Initiate processing and shipping of waste for offsite disposal for Waste Pit Remedial Actions Project (FY 1999).
- # Initiated waste placement in Cell 1 and completed construction of the liner for Cell 2 (FY 1998); continue waste placement, including decontamination and decommissioning debris in Cell 1 and Cell 2 of the On Site Disposal Facility, and initiate construction of the liner for Cell 3 (FY 1999).
- # Complete decontamination and decommissioning of Boiler Plant and Plant 9 (FY 1999).
- # Award subcontracts for decontamination and decommissioning of Plant 5 and 6 complexes (FY 1999).
- # Award Silo 3 subcontract; complete proof of principle testing and accelerated waste retrieval for silos 1 and 2 (FY 1999).
- # The DOE and the Environmental Protection Agency signed a dispute resolution settlement agreement for the Fernald Environmental Management Program which assessed a monetary penalty of \$100,000 to be paid in FY 1999.
- # Continue safe shutdown of the former Fernald production operations facilities; decontaminate and decommission Plant 1,3, and 5 complexes; continue transportation of contaminated building debris, soil, and waste pits remediated media to the On-site Disposal Facility; continue media restoration of the Great Miami Aquifer through extraction/injection; initiate construction of the Fernald Silo 3 recover and treatment facility; and complete the design of Silos 1 and 2 retrieval and treatment facility (FY 2000).

#### **Miamisburg Environmental Management Project**

- # Completed three release site cleanups and three release site assessments (FY 1998); complete three release site assessments (FY 1999).
- # Completed safe shutdown of 25 buildings in FY 1998, and complete an additional one in FY 1999.
- # Completed 22 facilities assessments and 19 decommissionings (FY 1998); complete an additional four assessments and four decommissionings (FY 1999).
- # Completed disposal of all accountable tritium inventory (FY 1998).
- # Complete shipment of 7 kg of nuclear materials to receiver sites (FY 1999).
- # Completed transport and disposal of 2,200.0 m<sup>3</sup> of low level waste (FY 1998); and complete transport and disposal of 19.0 m<sup>3</sup> of mixed low level waste and 5,399.0 m<sup>3</sup> of low level waste (FY 1999).
- # Continue decontamination and decommissioning of the Mound tritium complex (the “critical path”); and continue the remediation and transfer of buildings to the City of Miamisburg (FY 2000).

## Funding Schedule

(dollars in thousands)

	FY 1998	FY 1999	FY 2000	\$ Change	% Change
HQNP-SI01-CL-OH / Security Investigations	0	94	94	0	>999.9%
OH-AB-01 / Remediation	9,757	10,393	10,643	250	2.4%
OH-AB-02 / Project Management, Site Services, ES&H	4,880	5,012	4,762	-250	-5.0%
OH-CL-02-D / West Jefferson Site Decontamination (Defense Funded)	2,773	2,000	6,000	4,000	200.0%
OH-CL-03-D / Project Management, Site Support & Maintenance	2,045	1,593	2,841	1,248	78.3%
OH-FN-01 / Facility Shutdown	44,744	29,211	25,125	-4,086	-14.0%
OH-FN-02 / Facility D&D	9,206	13,794	17,689	3,895	28.2%
OH-FN-03 / On-Site Disposal Facility	15,113	16,264	19,438	3,174	19.5%
OH-FN-04 / Aquifer Restoration	22,811	24,974	24,296	-678	-2.7%
OH-FN-05 / Waste Pits Remediation Project	44,056	46,147	48,840	2,693	5.8%
OH-FN-06 / Soils	12,760	19,532	15,654	-3,878	-19.9%
OH-FN-07 / Silos	22,654	17,545	33,922	16,377	93.3%
OH-FN-08 / Nuclear Materials	3,800	3,167	2,121	-1,046	-33.0%
OH-FN-10 / Mixed Waste	9,020	5,279	5,786	507	9.6%
OH-FN-11 / Waste Management	15,333	19,489	14,910	-4,579	-23.5%
OH-FN-12 / Program Support & Oversight	59,203	78,600	72,808	-5,792	-7.4%
OH-MB-01 / Tritium Operations Transition	16,040	0	0	0	>999.9%
OH-MB-02 / Main Hill Tritium	12,157	33,413	35,266	1,853	5.5%
OH-MB-03 / Legacy Waste	7,345	14,434	7,199	-7,235	-50.1%
OH-MB-04 / Main Hill Rad	3,156	3,357	4,006	649	19.3%
OH-MB-05 / Main Hill Non Rad	4,105	2,776	2,768	-8	-0.3%
OH-MB-06 / Special Metals/Plutonium Processing Hill	5,026	2,526	6,617	4,091	162.0%
OH-MB-07 / Test Fire Valley	4,329	4,513	7,157	2,644	58.6%
OH-MB-08 / Soils	13,046	6,928	3,097	-3,831	-55.3%
OH-MB-09 / Facility Operations & Maintenance	19,057	19,191	19,038	-153	-0.8%
OH-MB-10 / Exit Support Project	1,369	808	7,205	6,397	791.7%
<b>Total, Ohio</b>	<b>363,785</b>	<b>381,040</b>	<b>397,282</b>	<b>16,242</b>	<b>4.3%</b>

## Funding by Site

(dollars in thousands)

	FY 1998	FY 1999	FY 2000	\$ Change	% Change
Ashtabula .....	14,637	15,405	15,405	0	>999.9%
Columbus .....	4,818	3,593	8,841	5,248	146.1%
Fernald .....	258,700	274,002	280,589	6,587	2.4%
Miamisburg .....	85,630	87,946	92,353	4,407	5.0%
Ohio Field Office .....	0	94	94	0	>999.9%
<b>Total, Ohio .....</b>	<b>363,785</b>	<b>381,040</b>	<b>397,282</b>	<b>16,242</b>	<b>4.3%</b>

## Metrics Summary

	FY 1998	FY 1999	FY 2000
<b>Remedial Action/Release Site</b>			
Assessments .....	3.0	3.0	3.0
Cleanups .....	3.0	0.0	6.0
<b>Remediation Waste</b>			
Generated .....	0.0	221,871.0	148,226.0
<b>Facility Deactivation</b>			
Completed Deactivations .....	38.0	6.0	13.0
Not yet deactivated/monitored .....	119.0	105.0	92.0
In Post Deactivation Monitoring .....	1.0	0.0	0.0
<b>Facility Decommissioning</b>			
Assessments .....	22.0	8.0	14.0
Cleanups .....	21.0	11.0	14.0
<b>Nuclear Material Stabilization</b>			
Made Disposition Ready - Other Forms of NM .....	2.0	23.0	2.0
Made Disposition Ready - Pu Metal/Oxides/Other .....	2.0	2.0	0.0
Made Disposition Ready Onsite - U Other Forms .....	0.0	7.0	0.0
Made Disposition Ready Ship Offsite - U Other Forms .....	204,002.1	4,386,000.0	2,609,000.0
<b>Transuranic Waste (TRU)</b>			
Storage (m <sup>3</sup> ) .....	247.0	247.0	247.0
<b>Mixed Low-Level Waste (MLLW)</b>			
Treatment .....	104.6	0.0	0.0
Storage .....	19.0	0.0	0.0
Disposal - DOE Onsite/Commercial (m <sup>3</sup> ) .....	0.0	531.8	13.2

	FY 1998	FY 1999	FY 2000
Low Level Waste (LLW)			
Treatment .....	0.0	1,500.0	1,000.0
Storage .....	28,728.0	4,202.0	1,220.0
Ship to DOE Disposal Site .....	2,649.0	8,895.0	9,293.0
DOE Onsite/ Commercial (m <sup>3</sup> ) .....	0.0	9,591.0	3.0

## Site Description

### Fernald Environmental Management Project

The Fernald Environmental Management Project site encompasses approximately 1,050 acres, located 17 miles northwest of Cincinnati, Ohio. High-purity uranium metal products were produced at the Fernald Environmental Management Project site for the DOE and its predecessor agencies from 1951 to 1989. Thorium was also processed, but on a smaller scale, and is still stored on-site. Uranium processing operations at the Fernald Environmental Management Project were limited to a fenced, 136-acre tract known as the Production Area. In November 1989, the Environmental Protection Agency placed the Fernald Environmental Management Project site on the National Priorities List, and in April 1990 DOE and the Environmental Protection Agency entered into a Consent Agreement (since amended) for site remediation. The Consent Agreement created five Operable Units covering total site remediation. The Fernald Environmental Management Project has implemented an accelerated cleanup schedule which provides for site closure, with the completion of the currently established in-situ contaminant source remediation and risk mitigation activities, by FY 2005. The in-situ contaminant sources for Operable Unit 1, Operable Unit 2, Operable Unit 3, and Operable Unit 5 will be removed and appropriately disposed of by FY 2005. In addition, the extraction and treatment infrastructure required to contain and mitigate risks associated with contaminated groundwater will be fully in place. Follow-up activities for FY 2006 through FY 2008 include finalization of treatment and disposal of Silos 1 and 2 wastes and structures per the Operable Unit 4 Record of Decision amendment. The Fernald Environmental Management Project will utilize technologies such as a new inorganic treatment process to treat PCB contaminated low-level and mixed low level waste (Tri-Mixed Treatment Demonstration), Oxy-gasoline torch cutting, vacuum removal of insulation materials, process piping interior inspection, and a technology demonstration project (injection of treated groundwater) that may reduce the groundwater remediation schedule from 27 to 10 years. Fernald Environmental Management Project is in compliance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980; the Federal Facility Compliance Agreement; the Resource Conservation and Recovery Act; the National Energy Policy Act; and all regulatory requirements.

## **Ashtabula Environmental Management Project**

The Ashtabula Environmental Management Project site, located in Ashtabula, Ohio, is owned and operated by the RMI Company, and is contaminated with both radiological and hazardous materials resulting from previous operations for the DOE to shape radioactive materials. The Ashtabula Environmental Management Project is comprised of three release sites and 25 buildings. The cleanup plan requires decontamination and decommissioning of buildings and the remediation of contaminated soils and groundwater to allow unrestricted use of the site. The Ashtabula Environmental Management Project goal is to achieve completion by FY 2003, with an associated life-cycle reduction in cost of \$48,600,000 from the costs projected in the FY 1996 Baseline Environmental Management Report. Most of the cost reduction is due to the ability to treat and reduce the volume of contaminated waste (using the soil treatment system for soil remediation) that must be shipped off-site to a disposal facility. Ashtabula Environmental Management Project is in compliance with Nuclear Regulatory Commission and other regulatory requirements. Upon completion, the site will be released to the RMI Company. Post-completion, long term groundwater pump and treat operations will continue until FY 2018.

## **Columbus Environmental Management Project**

The Columbus Environmental Management Project is comprised of two geographic sites (King Avenue and West Jefferson) located in and near Columbus, Ohio. Research and development work was performed at these facilities for the DOE and its predecessors agencies. The buildings are privately-owned by Battelle Memorial Institute. The facilities retain an active Nuclear Regulatory Commission license for possession of special nuclear material and are in compliance with all necessary regulatory requirements. Both sites are radioactively-contaminated and cleanup efforts are funded by both the Defense and Non-Defense accounts. The Columbus Environmental Management Project consists of 17 facilities and two release sites, of which 13 facilities cleanups were completed by the end of FY 1998. Decontamination activities at West Jefferson were initiated in FY 1998. Activities at the West Jefferson site should be completed by FY 2006 and the site returned to the private owner.

## **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 Miamisburg Environmental Management Project is predominately funded from the Defense Facilities Closure Projects appropriation, but does receive some funds from the Non-Defense Environmental Management appropriation. The 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, when these activities were transferred to other DOE facilities. The Mound Plant mission involved production of components which contained plutonium-238, polonium-210 and tritium, and processing large quantities of various types of high explosives. As a result of these past operations, the buildings, soil, and groundwater are contaminated with radioactive and hazardous chemicals. The only remaining mission at Mound is the production of plutonium heat sources and Radioisotopic Thermoelectric Generators (RTG's) by the Office of Nuclear Energy primarily for National Aeronautics

and Space Administration space missions and other customers. The Office of Nuclear Energy is in the process of deciding whether to keep this activity at Mound or to relocate it elsewhere within the DOE complex. The Miamisburg Environmental Management Project is on the Environmental Protection Agency National Priority List, and a Federal Facility Agreement to remediate the site has been negotiated with the Ohio and U.S. Environmental Protection Agencies. The Miamisburg Environmental Management Project is comprised of 416 release sites and 111 facilities. In FY 2000, Miamisburg Environmental Management Project will continue to clean up the buildings and soil at the site with the goal of disposition of the real property by the year 2005 or earlier. The Department is working with stakeholders and regulators for the transfer of site ownership to the Miamisburg Mound Community Improvement Corporation upon completion of required cleanup activities. The Miamisburg Environmental Management Project is in compliance with all necessary regulatory requirements.

### Detailed Program Justification

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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The Ohio projects are managed through incentivized contracts based on performance and utilize fixed-price subcontracts to assure the most efficient service to the Government. This scope planned for FY 2000 has been reviewed and is consistent with the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure*. The Ohio projects included in this section of the budget have had independent reviews of their baseline scopes and costs. The scope and funding requested for FY 2000 are consistent with the activities that have been reviewed.

#### HQNP-SI01-CL-OH/Security Investigations

Funding will be used to perform new security investigations and re-investigations for non-federal employees in accordance with DOE Order requirements for the Ohio/Mound site.

HQNP-S101-CL-OH .....	0	94	94
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<p>Metrics</p> <p>No quantifiable corporate performance measures are associated with this project.</p>
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(dollars in thousands)

FY 1998	FY 1999	FY 2000
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**OH-AB-01/Remediation**

The purpose of this project is to remediate the RMI Company Extrusion facility, which involves deactivation of 25 on-site buildings, and decontamination or demolition of 21 on-site buildings and associated equipment. Also included in this project is the processing/treatment of low level and mixed low level radioactive contamination resulting from decontamination and excavation activities and vapor stripping of groundwater to remove hazardous constituents.

- # Remediate 3 buildings.
- # Dispose of 885 m<sup>3</sup> of remediation waste.
- # 11,200 m<sup>3</sup> of soil treated and returned on site.

OH-AB-01 .....	9,757	10,393	10,643
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Metrics			
Facility Deactivation			
Deactivated during period .....	10.0	3.0	0.0
Not yet deactivated .....	15.0	12.0	12.0
Facility Decommissioning			
Cleanups .....	0.0	0.0	3.0
Mixed Low-Level Waste (MLLW)			
Treatment (m <sup>3</sup> ) .....	1.0	0.0	0.0
Disposal - DOE Onsite/Commercial (m <sup>3</sup> ) .....	0.0	2.8	11.2
Remediation Waste Generated .....	0.0	468.1	884.9
Low Level Waste (LLW)			
Disposal - DOE Onsite/ Commercial (m <sup>3</sup> ) .....	0.0	0.0	3.0
Ship to DOE Disposal .....	59.0	166.0	0.0

**OH-AB-02/Project Management, Site Services, ES&H**

This project provides the management, control, and services necessary to ensure the decommissioning of the RMI Company Extrusion Plant site is conducted in the safest and most cost effective manner, while maintaining compliance with all applicable statutes, contracts, and regulations.

- # Obtain Nuclear Regulatory Commission Free-Release for Area C and Area C-West.
- # Publication of the Annual Site Environmental Report.

OH-AB-02 .....	4,880	5,012	4,762
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(dollars in thousands)

FY 1998	FY 1999	FY 2000
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<p>Metrics</p> <p>No quantifiable corporate performance measures are associated with this project.</p>
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**OH-CL-02-D/West Jefferson Site Decontamination**

This project involves facility decommissioning at the West Jefferson site, including a Hot Cell building and a retired research reactor 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.

- # Initiate decontamination operations within JN-2, JN-3, and on the external areas at the site.
- # Continue transuranic waste volume reduction utilizing the Sonatol System and associated material and equipment removal.
- # Continue health and safety support and emergency preparedness.
- # Make associated shipments of 177 m<sup>3</sup> of low level waste.
- # Prepare 100 m<sup>3</sup> of transuranic waste disposal-ready for shipment to the Waste Isolation Pilot Plant.

OH-CL-02-D .....	2,773	2,000	6,000
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Metrics			
Remediation Waste (m <sup>3</sup> )			
Generated .....	0.0	35.0	283.0
Low Level Waste (LLW)			
Disposal - Ship to DOE Disposal (m <sup>3</sup> ) .....	35.0	72.0	177.0

**OH-CL-03-D/Project Management, Site Support, & Maintenance**

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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The scope of this project is to provide technical support to the field work involved in the two related decontamination projects (King Avenue and West Jefferson sites), including surveillance and maintenance, project management and regulatory compliance.

# Continue to provide required core environmental activities and surveillance and maintenance activities, including facility structural/hazard analysis of major building systems.

# Provide program management support for increased work activities, including public affairs, regulatory compliance, quality assurance, and project management.

OH-CL-03-D .....	2,045	1,593	2,841
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<p>Metrics</p> <p>No quantifiable corporate performance measures associated with this project.</p>
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**OH-FN-01/Facility Shutdown**

The objective of this project is to complete safe shutdown of the former production operations/facilities, eliminating the potential release of radiological and chemical contaminants to the soil and groundwater. The equipment and materials from the facilities will be removed and placed in the On-Site Disposal Facility, and all facilities will be dismantled.

# Continue base services activities, including safety and health, emergency management, fire protection, radiological control, and environmental monitoring in support of restoration activities.

# Continue facility shutdown activities for non-nuclear facilities.

OH-FN-01 .....	44,744	29,211	25,125
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(dollars in thousands)

	FY 1998	FY 1999	FY 2000
Metrics			
Facility Deactivation			
Completed Deactivations .....	3.0	2.0	0.0
Remediation Waste (m <sup>3</sup> )			
Generated .....	0.0	138.0	71.0
Low Level Waste (LLW)			
Disposal - DOE Onsite/ Commercial (m <sup>3</sup> ) .....	0.0	3,872.0	0.0

### OH-FN-02/Facility D&D

This project addresses the decontamination and decommissioning of over 200 above-grade structures in the former production area (Operable Unit 3), including preparatory actions prior to decontamination and decommissioning, such as removal of process residues, waste, nuclear product inventories, disconnecting utilities, and general gross decontamination. Following removal of above-grade structures, this project will also conduct soil remediation under those structures.

- # Complete decontamination and decommissioning of Maintenance/Complex.
- # Continue decontamination and decommissioning for Plant 3, 5 and 6 Complexes.
- # Continue transportation of decontamination and decommissioning debris to On-Site Disposal Facility transfer area.

OH-FN-02 .....	9,206	13,794	17,689
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Metrics			
Facility Decommissioning			
Cleanups .....	1.0	3.0	1.0
Low Level Waste (LLW)			
Disposal - Ship to DOE Disposal (m <sup>3</sup> ) .....	0.0	578.0	298.0

### OH-FN-03/On-Site Disposal Facility

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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The On-Site Disposal Facility project provides for disposal of the waste generated as a result of site remediation at Fernald. It will have eight disposal cells, and a ninth, contingent cell, for acceptance of up to 2.5 million cubic yards of volume that meets established waste acceptance criteria. It also funds support facilities, receipt and placement of wastes and impacted materials, facility closure and post-closure monitoring and maintenance.

- # Complete permanent cap for Cell 1.
- # Complete waste placement in Cell 2 of On-Site Disposal Facility, and complete installation of liner for Cell 3.

OH-FN-03 .....	15,113	16,264	19,438
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Metrics			
Remediation Waste (m <sup>3</sup> )			
Generated .....	0.0	174,788.0	71,534.0
Low Level Waste (LLW)			
Disposal - DOE Onsite/ Commercial (m <sup>3</sup> ) .....	0.0	1,891.0	0.0

**OH-FN-04/Aquifer Restoration**

This project is designed to confine and extract uranium contamination from the Great Miami Aquifer, a sole source aquifer that underlies the Fernald site. The activity was planned to continue out through 2020, but with improved technology, may be accelerated with estimated completion before 2012. Site-wide management of storm water, wastewater, sanitary sewage treatment and groundwater monitoring are all included in the scope of this project.

- # Continue groundwater monitoring, plugging, and abandonment, sampling and reports.
- # Continue extraction/injection operations and maintenance.
- # Continue operation of water treatment systems, groundwater monitoring, and South Plume Well Field.

OH-FN-04 .....	22,811	24,974	24,296
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(dollars in thousands)

	FY 1998	FY 1999	FY 2000
Metrics			
Remediation Waste (m <sup>3</sup> )			
Generated .....	0.0	460.0	460.0

### OH-FN-05/Waste Pits Remediation Project

This project will excavate, package, and ship to an off-site, permitted commercial disposal facility, material from the waste pits in Operable Unit 1 and other selected material that will not meet waste acceptance criteria for the on-site disposal cell.

# Continue waste processing and shipping for the Waste Pits project to an off-site, permitted commercial disposal facility.

OH-FN-05 .....	44,056	46,147	48,840
----------------	--------	--------	--------

Metrics			
Remediation Waste (m <sup>3</sup> )			
Generated .....	0.0	40,629.0	62,114.0
Low Level Waste (LLW)			
Disposal - Ship to DOE Disposal (m <sup>3</sup> ) .....	0.0	555.0	786.0

### OH-FN-06/Soils

The purpose of the Soil Characterization and Excavation Project is to develop and execute the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 remedial design, excavation, characterization and restoration of soil and other solid materials impacted by production operations and other activities conducted at the Fernald Environmental Management Facility. There are several areas of soil restoration that are broken up into multiple phases and units.

# Continue Southern Waste Unit excavation.

# Complete excavation of Area I, Phase II.

# Complete Lime Sludge Pond excavation.

OH-FN-06 .....	12,760	19,532	15,654
----------------	--------	--------	--------

(dollars in thousands)

	FY 1998	FY 1999	FY 2000
Metrics			
Remediation Waste (m <sup>3</sup> )			
Generated .....	0.0	1,471.0	5,122.0

**OH-FN-07/Silos**

This project will treat the wastes contained in Silos 1, 2 and 3, and dispose of the wastes at the Nevada Test Site and/or a permitted, commercial disposal facility.

- # Continue Silo 3 pre-operations/treatment activities.
- # Complete design of Tank Transfer Area/Waste Retrieval System and Radon Control System and initiate construction of Tank Transfer Area Waste Retrieval System and Radon Control System for Silos 1 and 2.

OH-FN-07 .....	22,654	17,545	33,922
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Metrics
This project has associated corporate performance measures; however, no measures are reportable in the three year budget profile.

**OH-FN-08/Nuclear Materials**

This project provides for the disposition of approximately 15.6 million pounds of low enriched, normal, and depleted uranium left from the shutdown of the processing facilities.

- # Continue nuclear materials disposition.

OH-FN-08 .....	3,800	3,167	2,121
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Metrics			
Nuclear Material Stabilization			
Made Disposition Ready Ship Offsite - U Other forms (kg Bulk) . . . .	204,000.0	4,386,000.0	2,609,000.0

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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**OH-FN-10/Mixed Waste**

This project will treat or process legacy and newly generated mixed waste to meet the requirement for off-site disposal, and includes scope for the disposition of hazardous waste generated during routine operations. The scope includes stabilization, treatment of process residues, disposal of polychlorinated biphenyl contaminated waste, and treatment and disposal of hazardous solutions and chemicals, motor oil, and wastes not specifically covered in other projects.

# Continue mixed waste disposition.

# Start up of mixed waste organic extraction project.

OH-FN-10 .....	9,020	5,279	5,786
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Metrics			
Remediation Waste (m <sup>3</sup> )			
Generated .....	0.0	254.0	44.0
Mixed Low-Level Waste (MLLW)			
Treatment (m <sup>3</sup> ) .....	102.6	0.0	0.0
Disposal - DOE Onsite/Commercial (m <sup>3</sup> ) .....	0.0	510.0	0.0
Low Level Waste (LLW)			
Disposal - Ship to DOE Disposal (m <sup>3</sup> ) .....	0.0	4,833.0	1,122.0

**OH-FN-11/Waste Management**

This project encompasses the characterization, minimization, recycling, treatment, storage, and disposal for existing low level and sanitary wastes. It also includes program oversight and coordination of all organizations (including silo project) generating waste on site.

# Continue low level waste disposition.

OH-FN-11 .....	15,333	19,489	14,910
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Metrics			
Low Level Waste (LLW)			
Storage - Total (m <sup>3</sup> ) .....	23,900.0	4,202.0	1,220.0
Treatment (m <sup>3</sup> ) .....	0.0	1,500.0	1,000.0
Disposal - Ship to DOE Disposal (m <sup>3</sup> ) .....	355.0	1,120.0	4,910.0

**OH-FN-12/Program Support & Oversight**

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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This project includes the program management and oversight activities to support the remediation of Fernald. It also provides for regulatory oversight and ongoing litigation costs. Activities include project planning, monitoring, reporting and scheduling. Program support functions include space management, program services, human resources, finance, contract and asset management, records/information/total quality management. Oversight and program integration functions include programmatic cost and budget, program services, safety and health, project controls, emergency services, environmental compliance, and quality assurance.

# Continue project management and administrative activities.

OH-FN-12 . . . . .	59,203	78,600	72,808
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<p>Metrics No quantifiable corporate performance measures are associated with this project.</p>
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**OH-MB-01/Tritium Operations Transition**

This project was designed to remove excess legacy materials, primarily tritium gas, from Miamisburg so that decontamination and decommissioning may proceed. Major objectives were to load all remaining tritium gas into transport vessels for shipment to Savannah River, repackage all "special" units and ship to Los Alamos National Laboratory for processing or shipment to alternate site for temporary storage, complete repackaging and shipment of excess plutonium, uranium and other sources to receiver sites, and complete characterization, repackaging, and shipment of miscellaneous excess isotopes to Nevada Test Site.

# Project is complete.

OH-MB-01 . . . . .	16,040	0	0
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<p>Metrics No quantifiable corporate performance measures are associated with this project.</p>
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**OH-MB-02/Main Hill Tritium**

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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This project provides for the safe shutdown and removal or decontamination of tritium contaminated equipment, duct work, and chemical mixtures in four buildings, so they may be released for reuse or demolished.

# Full scale efforts will be devoted to the decontamination of the four major buildings that comprise the tritium complex, which is on the critical path.

OH-MB-02 .....	12,157	33,413	35,266
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Metrics			
Facility Deactivation			
Not Yet Deactivated/Monitored .....	3.0	3.0	3.0

**OH-MB-03/Legacy Waste**

This project focuses on low-level, mixed low-level and transuranic wastes. The goal is to treat and dispose each waste stream from the Miamisburg site.

# Transuranic waste will be characterized and repackaged for interim storage or made disposal-ready for shipment to the Waste Isolation Pilot Plant.

# Excess nuclear materials will be removed from site.

# Continue low-level and mixed low-level waste disposition.

OH-MB-03 .....	7,345	14,434	7,199
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Metrics			
Remediation Waste (m <sup>3</sup> )			
Generated .....	0.0	3,628.0	7,714.0
Transuranic Waste (TRU)			
Storage (m <sup>3</sup> ) .....	247.0	247.0	247.0
Mixed Low-Level Waste (MLLW)			
Treatment (m <sup>3</sup> ) .....	1.0	0.0	0.0
Storage (m <sup>3</sup> ) .....	19.0	0.0	0.0
Disposal - DOE Onsite/Commercial (m <sup>3</sup> ) .....	0.0	19.0	2.0
Low Level Waste (LLW)			
Storage - (m <sup>3</sup> ) .....	4,828.0	0.0	0.0

(dollars in thousands)

	FY 1998	FY 1999	FY 2000
Disposal - Ship to DOE Disposal Site (m <sup>3</sup> ) . . . . .	2,200.0	1,571.0	2,000.0
Disposal - DOE Onsite/ Commercial (m <sup>3</sup> ) . . . . .	0.0	3,828.0	0.0
Nuclear Material Stabilization			
Made Disposition Ready Pu Metal/Oxides/Other (Cont) . . . . .	2.0	2.0	0.0
Made Disposition Ready Onsite - U Other Forms (Kg Bulk) . . . . .	0.0	7.0	0.0
Made Disposition Ready Ship Offsite - U Other Forms (Kg Bulk) . . . . .	2.1	0.0	0.0
Made Disposition Ready - Other Forms of NM (Cont) . . . . .	2.0	23.0	2.0

**OH-MB-04/Main Hill Rad**

The Main Hill Rad project involves the decommissioning of eight buildings and resulting release of property for non-DOE industrial use. The buildings identified for demolition are the research, semi-works, cafeteria, semi-works filter bank, B Stack, the E & E Annex (environmental lab), and the H building (laundry and change room).

# Complete safe shutdown of E and E Annex environmental laboratory.

OH-MB-04 . . . . .	3,156	3,357	4,006
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Metrics			
Facility Deactivation			
Completed Deactivations . . . . .	1.0	0.0	1.0
In Post-Deactivation Monitoring . . . . .	1.0	0.0	0.0
Not Yet Deactivated/Monitored . . . . .	5.0	5.0	4.0
Facility Decommissioning			
Assessments . . . . .	1.0	0.0	1.0
Cleanups . . . . .	1.0	0.0	0.0

**OH-MB-05/Main Hill Non Rad**

This project provides for the evaluation and release or demolition of over 30 buildings located primarily on the Main Hill, but also includes infrastructure support buildings located elsewhere on site. These buildings are not on the Exit Plan Critical Path, and can therefore be completed in parallel with other site activities.

# Complete safe shutdown and demolish or transfer nine non-rad contaminated buildings.

(dollars in thousands)

	FY 1998	FY 1999	FY 2000
OH-MB-05 .....	4,105	2,776	2,768

Metrics			
Facility Deactivation			
Completed Deactivations .....	3.0	1.0	10.0
Not Yet Deactivated/Monitored .....	29.0	28.0	18.0
Facility Decommissioning			
Assessments .....	2.0	4.0	9.0
Cleanups .....	2.0	3.0	9.0

### OH-MB-06/Special Metals/Plutonium Processing Hill

This project involves the decontamination and decommissioning or demolition of 22 building structures, one water tower, one air emission stack, site restoration work and the resulting release of property for non-government industrial use.

- # Complete 50% of decontamination work on a major contaminated building (Building 38), and complete facility assessments on three other buildings.

OH-MB-06 .....	5,026	2,526	6,617
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Metrics			
Facility Deactivation			
Completed Deactivations .....	9.0	0.0	0.0
Not Yet Deactivated/Monitored .....	12.0	12.0	12.0
Facility Decommissioning			
Assessments .....	12.0	2.0	3.0
Cleanups .....	10.0	3.0	0.0

### OH-MB-07/Test Fire Valley

The purpose of this project is to make approximately 67 buildings releasable for local industrial use or demolish them depending on the cost or need for reuse. The most radiologically contaminated buildings will be scheduled earliest for decontamination.

- # Continue decontamination of two rad-contaminated buildings.
- # Complete assessment and cleanup of Explosives Preparation Facility.

(dollars in thousands)

	FY 1998	FY 1999	FY 2000
OH-MB-07 .....	4,329	4,513	7,157

Metrics			
Facility Deactivation			
Completed Deactivations .....	12.0	0.0	2.0
Not Yet Deactivated/Monitored .....	55.0	45.0	43.0
Facility Decommissioning			
Assessments .....	7.0	2.0	1.0
Cleanups .....	7.0	2.0	1.0

### OH-MB-08/Soils

This project addresses approximately 73 soil sites known or suspected as being contaminated. The purpose is to eliminate the threat from radionuclide, petroleum, and solvent contamination.

# Continue soil vapor extraction and pump and treat.

# Complete cleanup on six release sites.

OH-MB-08 .....	13,046	6,928	3,097
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Metrics			
Release Sites			
Assessments .....	3.0	3.0	3.0
Cleanups .....	3.0	0.0	6.0

### OH-MB-09/Facility Operations & Maintenance

The project scope ensures the site's facilities, infrastructure and utilities are maintained in a manner conducive to the ultimate site disposition, while at the same time ensuring the environment, safety and health of the site's workers and the local community.

# Support site engineering, facility and utility services.

OH-MB-09 .....	19,057	19,191	19,038
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(dollars in thousands)

	FY 1998	FY 1999	FY 2000
Metrics			
No quantifiable corporate performance measures are associated with this project.			

**OH-MB-10/Exit Support Project**

This project contains all costs associated with state and Federal Environmental Protection Agency oversight of the site remediation activities; legal expenses; and Defense Contract Audit Agency audit support.

# Continue regulatory oversight, legal expenses and Defense Contract Audit Agency support.

OH-MB-10 .....	1,369	808	7,205
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Metrics			
No quantifiable corporate performance measures are associated with this project.			

Total, Ohio .....	<u>363,785</u>	<u>381,040</u>	<u>397,282</u>
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## Explanation of Funding Changes from FY 1999 to FY 2000

FY 2000 vs. FY 1999 (\$000)
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<b>OH-AB-01/Remediation</b>	
# Increase is due to funding for the Building Remediation Subcontract for demolition and shipment of debris. . . . .	250
<b>OH-AB-02/Project Management, Site Services, ES&amp;H</b>	
# Decrease is due to anticipated reduction of workforce used to install ground water treatment technology, and due to cost efficiencies. . . . .	-250
<b>OH-CL-02-D/West Jefferson Site Decontamination (Defense Funded)</b>	
# Increase is due to initiation of decontamination operations within JN-2, JN-3, and on the external areas at the site. . . . .	4,000
<b>OH-CL-03-D/Project Management, Site Support and Maintenance</b>	
# Increase is due to project management and site support for the increased work scope of decontamination operations at the West Jefferson Site. . . . .	1,248
<b>OH-FN-01/Facility Shutdown</b>	
# Decrease is due to completion of nuclear facility safe shutdown efforts in FY 1999. . .	-4,086
<b>OH-FN-02/Facility D&amp;D</b>	
# Increase is due to the move from safe shutdown to decontamination and decommissioning, such as Plant 5, Plant 6, and Maintenance/Tank Farm Complex. . . .	3,895
<b>OH-FN-03/On-Site Disposal Facility</b>	
# Increase is due to acceleration of On-Site Disposal Facility construction. . . . .	3,174
<b>OH-FN-04/Aquifer Restoration</b>	
# Decrease is due to completion of the Lab Relocation project in FY 1999. . . . .	-678
<b>OH-FN-05/Waste Pits Remediation Project</b>	
# Increase is due to additional volumes of waste processed and shipped for Waste Pits Remediation Project. . . . .	2,693
<b>OH-FN-06/Soils</b>	
# Decrease is due to reduced remaining levels of soils to be excavated . . . . .	-3,878
<b>OH-FN-07/Silos</b>	
# Increase is due to Silo 3 subcontract award and increased construction activities for Silos 1 and 2. . . . .	16,377
<b>OH-FN-08/Nuclear Materials</b>	

FY 2000 vs. FY 1999 (\$000)
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# Decrease reflects reduced levels of nuclear materials disposition . . . . .	-1,046
<b>OH-FN-10/Mixed Waste</b>	
# Increase is due to the startup of the Mixed Waste Organic Extraction Project . . . . .	507
<b>OH-FN-11/Waste Management</b>	
# Decrease is due to reduced levels of low level waste disposition . . . . .	-4,579
<b>OH-FN-12/Program Support &amp; Oversight</b>	
# Decrease reflects the reduction in the number of buildings requiring safety and monitoring systems to run them, resulting in lower program support and oversight costs. . . . .	-5,792
<b>OH-MB-02/Main Hill Tritium</b>	
# Increase is due to greater manhours assigned to Area 1 (building services) in decontamination of T building and contaminated areas of R building. . . . .	1,853
<b>OH-MB-03/Legacy Waste</b>	
# Decrease is due to the reduction of legacy waste inventory and the monitoring activities associated with the storage.. . . .	-7,235
<b>OH-MB-04/Main Hill Rad</b>	
# Increase is due to waste management support with demolition of facilities and due to volume of remediation waste generated. . . . .	649
<b>OH-MB-05/Main Hill Non Rad</b>	
# Funding level is essentially stable. . . . .	-8
<b>OH-MB-06/Special Metals/Plutonium Processing Hill</b>	
# Increase is due to greater efforts for decontamination work on building 38 . . . . .	4,091
<b>OH-MB-07/Test Fire Valley</b>	
# Reflects increased efforts on decontamination of HH and WD buildings . . . . .	2,644
<b>OH-MB-08/Soils</b>	
# Decrease reflects facility completions and reduced activities associated with release sites. . . . .	-3,831
<b>OH-MB-09/Facility Operations &amp; Maintenance</b>	
# Funding is essentially stable. . . . .	-153

FY 2000 vs. FY 1999 (\$000)
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**OH-MB-10/Exit Support Project**

# Increase is due to the reduction of FY 1999 Budget Authority requirements of \$2,700,000 because of uncosted carryover balances to fund work scope such as Environmental Protection Agency regulatory oversight and Defense Contract Audit Agency support and to an increase of approximately \$3,700,000 which will be reallocated to other Project Baseline Summaries to support acceleration of critical path shutdown activities in the tritium contaminated facilities pending approved baseline change control proposals. . . . .	6,397
Total Funding Change, Ohio . . . . .	<u>16,242</u>

# Rocky Flats

## Mission Supporting Goals and Objectives

### Program Mission

The mission of the Defense Environmental Management, Site Closure program, carried out by the Rocky Flats Field Office, is to manage the site waste and materials, and to clean up and convert the site to beneficial use in a manner that is safe, environmentally and socially responsible, physically secure, and cost-effective.

### Program Goal

The goal for the Rocky Flats Environmental Technology Site is to accelerate the site closure from the current baseline of 2010 to 2006.

### Program Objectives

The Rocky Flats Site has developed a critical path for the current baseline activities that support the closure of the site by 2010.

The site baseline provides the detailed cost, scope, schedule, and critical path to achieve site closure by FY 2010. The details of this baseline are embodied in the Rocky Flats *Accelerating Cleanup: Paths to Closure* plan, which contains 29 projects (24 active projects in FY 1999) that are described in the project baseline summaries. The FY 2010 baseline also identifies a number of opportunities to accelerate the closure of Rocky Flats by 2006.

The critical path of work activities to support the closure of Rocky Flats requires:

#### **Stabilization of Special Nuclear Material and Residues**

The early completion of stabilization and deactivation activities is necessary to begin building demolition as soon as possible and cleanup of the affected areas. The completion of these activities can make funds currently used for surveillance and maintenance available for progress towards site closure.

The FY 2010 baseline schedule assumes that plutonium metals and oxides will be stabilized, placed in DOE-STD-3013 containers and shipped to the Savannah River Site K-Area from FY 2002-FY 2004, consistent with the Record of Decision for the Storage and Disposition of Weapons-Usable Fissile Material Programmatic Environmental Impact Statement.

Special nuclear material stabilization projects will focus on the safe storage, processing, packaging, and off-site shipment of all special nuclear material at Rocky Flats. This includes 2,300 containers of plutonium metals and oxides, 103,420 kilograms of plutonium residues, and approximately 24,000 liters of plutonium solutions.

### **Off-Site Shipment of Special Nuclear Material and Stabilized Residues**

To enable cleanup by FY 2006, plutonium metals and oxides must be removed from the site by FY 2002, 2 years early. The accelerated movement of materials provides for significant mortgage reduction savings in security and nuclear safety costs, and allows the decommissioning of the nuclear facilities to begin 2 years earlier. The Department is performing significant facility modifications at the Savannah River Site consistent with the recently issued Record of Decision for storage of excess plutonium in order to accommodate this transfer. Pending issuance of the second Record of Decision from the Environmental Impact Statement for Rocky Flats residues, the 2010 baseline assumes that plutonium residues will be stabilized, certified, and shipped to the Waste Isolation Pilot Plant by FY 2004.

Environmental Management made the first of two decisions (November 1998) based on environmental analysis to dispose of a large portion of the residues as waste at the Waste Isolation Pilot Plant and to send a few materials off-site for stabilization. With the second decision expected in January 1999, the majority of the Rocky Flats residues will be packaged as waste in preparation for disposal at the Waste Isolation Pilot Plant, significantly minimizing the need for processing and expediting removal of residues from the site by two years. Since material stabilization and removal are on the critical path to closure, the completion of this work by FY 2002 will provide mortgage reduction savings as well as increase schedule confidence for site closure.

### **Deactivation of Plutonium Buildings once the Special Nuclear Material is Removed**

The deactivation program will focus only on major plutonium and industrial facilities that would benefit from significant mortgage reduction or that require deactivation in preparation for decommissioning activities.

The current baseline assumes that major nuclear facilities decommissioning can take 5 to 7 years, and these activities dominate the later part of the site critical path schedule. The site is planning to complete the decommissioning of the Building 779 Cluster, a former plutonium production facility by June 2000, to not only improve the cost and schedule estimates for the decommissioning effort but to examine technologies to accelerate the overall closure schedule. To meet closure by FY 2006, the average estimated length of time it takes to decontaminate and decommission the major nuclear facilities must be improved by at least 1 year.

### **Demolition of buildings as soon as possible after completion of deactivation**

In order for Rocky Flats to meet the accelerated closure goal, facilities will need to undergo decommissioning as soon as possible after the completion of deactivation. A facility disposition path is being developed for each of the building cluster closure projects. This approach integrates and coordinates the deactivation, decontamination, and demolition activities. The schedules for facility disposition are aggressive and decommissioning needs to immediately follow, or in some cases be conducted in parallel with, the deactivation phase. This is essential to avoid sustained high mortgage costs within the plutonium facilities and to proceed to construction of the closure caps.

## **Construction of Closure Caps**

In order to accelerate closure, construction of the closure caps will need to be accomplished in phases. Rather than waiting until all facilities within the existing protected area are completely demolished and the entire acreage is remediated, as substantial areas are prepared, the closure caps can be constructed following remediation in the 300 and 700 areas. These closure caps will reduce water infiltration and direct runoff in the area, thereby preventing migration of any contaminants.

## **Safe Storage, Treatment and Disposal of Nuclear Waste**

The waste management project will focus on safe, compliant, and cost-effective waste minimization, storage, treatment, and disposal of low-level, mixed low-level, transuranic, mixed transuranic, hazardous, and sanitary waste. The project's near-term goals involve continuing treatment of hazardous and sanitary waste, off-site shipment and disposal of low-level waste, off-site treatment and disposal of mixed low-level waste. Selection of a disposal location for mixed waste must take place prior to FY 2000. Development of treatment capacity for mixed waste, and characterization and certification of transuranic and mixed transuranic waste, and initiation of shipments for disposition at the Waste Isolation Pilot Plant in New Mexico in FY 1999 is critical to meeting the closure goals for FY 2006.

## **Cleanup and Stewardship of Contaminated Area**

The Rocky Flats environmental restoration program activities will clean up a total of 144 cleanup sites (Individual Hazardous Substance Site, Potential Areas of Concern, Under Building Contamination, plumes, final covers) and decommission 686 facilities and buildings over the life of the site cleanup project. The designated release sites were originally grouped into 16 operable units, four of which have been closed through No Further Action Record of Decisions. Under the Rocky Flats Cleanup Agreement, signed July 19, 1996, most of the remaining operable units have been grouped into two areas, the Industrial Area and the Buffer Zone. Operable units 1, 3, 5, 11, 15, and 16 will have separate Records of Decision because they were either completed or nearly complete at the time the agreement was signed. Limited remediation is planned for the early years of site closure since many sites are unavailable for remediation. By the end of FY 1999, approximately 16 percent of the anticipated site remediations are planned to be completed.

## **Focus Management and Workers on Progress**

Projectization is intended to focus management attention on accomplishing measurable progress towards site closure. Progress metrics have been established for critical projects. These metrics establish quantitative annual targets (as a percentage of the total life-cycle project requirements) from which contractual performance measures will be developed and tracked to assess progress toward site closure. The project approach reinforces the commitment to accelerate the cleanup of Rocky Flats by implementation of a measurable and cost-effective program.

Although the processes required to attain this goal are not yet clearly defined, accelerated progress in tearing buildings down through technology deployment, productivity, contract incentives, and project management over the last 2 years provide confidence that continued improvements in these and other areas can help achieve the goal. This budget request reflects the FY 2010 baseline.

## 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.

## Significant Accomplishments and Program Shifts

- # Completed 38 special nuclear material shipments to Oak Ridge and Pantex (FY 1998).
- # Stabilized or repackaged 5,004 kilograms (FY 1998) and 32,662 kilograms (FY 1999) of plutonium-bearing residues.
- # Drained two liquid systems and strip out two liquid systems (FY 1998) and drain and remove 12 liquid systems (FY 1999) from Building 771.
- # Drained two areas (FY 1998) and 10 areas (FY 1999) in Building 371.
- # Disposed of 9,196 m<sup>3</sup> of low-level/mixed low-level waste to the Nevada Test Site and Envirocare in Utah (FY 1998). Dispose of 2,630 m<sup>3</sup> of low-level waste and 2,886 m<sup>3</sup> of mixed low-level waste off-site (FY 1999).
- # Completed construction of Building 440 transuranic repack station outside of protected area (FY 1998).
- # Removed 80 gloveboxes from Building 779 (FY 1998).
- # Demolished Building 123 and outbuildings (FY 1998).
- # Dispositioned 36,000 (FY 1998) and 60,000 (FY 1999) excess property items.
- # Completed source removal at T-1 trench (FY 1998).
- # Completed mound plume long-term treatment installation (FY 1998).
- # Install Plutonium Stabilization and Packaging System in Building 371 (FY 1999).
- # Prepare 670 m<sup>3</sup> of transuranic waste to be disposal ready for shipment to the Waste Isolation Pilot Plant (FY 1999).
- # Remove 22 kilograms of plutonium and uranium holdup (radioactive contamination) (FY 1999).
- # Disposition 4,000 waste chemical containers (FY 1999).
- # Demolish nine facilities comprising 8,462 square feet (FY 1999).
- # Remediate two environmental sites (FY 1999).
- # Disposition 500 items of classified matter (FY 1999).
- # Operate Plutonium Stabilization and Packaging System to stabilize/repackage at least 900 containers of plutonium metals and oxides (FY 2000).

- # Complete off-site disposal of approximately 13,000 m<sup>3</sup> of mixed low-level, low-level and hazardous wastes and 12,000 m<sup>3</sup> of uncontaminated sanitary wastes, and make ready for offsite disposal approximately 2,000 m<sup>3</sup> of transuranic/mixed transuranic waste (FY 2000).
- # Plutonium Solid Residue Stabilization Project will begin salt distillation for environmental restoration and molten salt extraction salts; will continue stabilization of ash and wet combustible residues; and repackaged fluorides will be shipped to the Savannah River Site (FY 2000).
- # Procure 2,100 shipping containers to support shipment of metals and oxides (FY 2000).
- # Metal and oxides, and scrub alloy shipments will be made to Savannah River pending final Record of Decision (FY 2000).
- # Tap, drain, and remove approximately 9 liquid process systems; and dismantle, size reduce, and package gloveboxes, tanks, and other equipment for shipment (FY 2000).
- # Building 881, 865, and 883 clusters will complete safe shutdown of approximately 22 rooms; and Building 779 closure will be complete (FY 2000).

### Funding Schedule

(dollars in thousands)

	FY 1998	FY 1999	FY 2000	\$ Change	% Change
HQNP-SI01-CL / Security Investigations . . .	0	948	1,278	330	34.8%
RF-001 / Buffer Zone Closure Project . . . . .	13,606	13,646	10,185	-3,461	-25.4%
RF-002 / Waste Management Project . . . . .	56,508	68,122	79,775	11,653	17.1%
RF-003 / Remediation Waste & Contingent Storage Project . . . . .	-9	1	0	-1	-100.0%
RF-004 / Special Nuclear Material Capital Support Project . . . . .	9,463	2,477	3,930	1,453	58.7%
RF-006 / Special Nuclear Material Consolidation Project . . . . .	3,008	2,234	1,287	-947	-42.4%
RF-007 / New Pu Interim Storage Vault	17	0	0	0	>999.9%
RF-008 / Plutonium Metals and Oxides Stabilization . . . . .	7,206	15,603	14,593	-1,010	-6.5%
RF-009 / Plutonium Solid Residue Stabilization Project . . . . .	56,263	49,888	64,882	14,994	30.1%
RF-010 / Plutonium Liquid Stabilization . . . . .	12,473	8,672	0	-8,672	-100.0%
RF-011 / Uranium Disposition Project . . . . .	587	1,048	0	-1,048	-100.0%
RF-012 / Special Nuclear Material Shipping Project . . . . .	3,475	7,166	17,166	10,000	139.5%
RF-013 / Closure Caps Project . . . . .	0	30	0	-30	-100.0%
RF-014 / Industrial Zone Closure Project . . .	22,269	23,127	19,799	-3,328	-14.4%
RF-015 / Miscellaneous Production Zone Cluster Closure Project . . . . .	8,828	11,488	14,969	3,481	30.3%
RF-016 / Building 371 Cluster Closure Project . . . . .	15,930	19,384	20,014	630	3.3%

**Environmental Management/Defense  
Facilities Closure Projects/Site Closure/  
Rocky Flats**

**FY 2000 Congressional Budget**

(dollars in thousands)

	FY 1998	FY 1999	FY 2000	\$ Change	% Change
RF-017 / Building 707/750 Cluster Closure Project .....	16,942	19,880	18,669	-1,211	-6.1%
RF-018 / Building 771/774 Cluster Closure Project .....	19,097	20,524	20,764	240	1.2%
RF-019 / Building 776/777 Cluster Closure Project .....	12,728	16,058	15,486	-572	-3.6%
RF-020 / Building 881 Cluster Closure Project .....	5,064	5,083	4,542	-541	-10.6%
RF-021 / Building 991 Cluster Closure Project .....	1,048	1,471	1,146	-325	-22.1%
RF-022 / Building 779 Cluster Closure Project .....	19,561	20,495	7,200	-13,295	-64.9%
RF-023 / Utilities and Infrastructure Project	41,906	40,574	41,905	1,331	3.3%
RF-024 / Safeguards and Security Project ..	36,792	45,002	43,531	-1,471	-3.3%
RF-025 / Infrastructure Improvement / Replacement Project .....	19,907	17,782	8,026	-9,756	-54.9%
RF-027 / Analytical Services Project .....	9,957	7,122	7,807	685	9.6%
RF-029 / Rocky Flats Office - DOE Management .....	20,797	17,855	18,800	945	5.3%
RF-030 / Kaiser-Hill Project Management ..	122,949	127,068	120,731	-6,337	-5.0%
RF-034 / Management Project .....	95,728	94,452	100,725	6,273	6.6%
Total, Rocky Flats .....	632,100	657,200	657,210	10	>999.9%

### Funding by Site

(dollars in thousands)

	FY 1998	FY 1999	FY 2000	\$ Change	% Change
Rocky Flats Plant .....	611,303	638,397	637,132	-1,265	-0.2%
Rocky Flats Field Office .....	20,797	18,803	20,078	1,275	6.8%
Total, Rocky Flats .....	632,100	657,200	657,210	10	>999.9%

## Metrics Summary

	FY 1998	FY 1999	FY 2000
<b>Remedial Action/Release Site</b>			
Assessments .....	18.0	13.0	15.0
Cleanups .....	2.0	2.0	2.0
<b>Facility Deactivation</b>			
Completed Deactivations (NB) .....	2.0	8.0	0.0
<b>Facility Decommissioning</b>			
Assessments .....	34.0	92.0	2.0
Cleanups .....	12.0	9.0	33.0
<b>Nuclear Material Stabilization</b>			
Stabilized - Plutonium Solution (L) .....	3,035.0	0.0	0.0
Stabilized - Plutonium Residue (Kg Bulk) .....	5,004.0	32,662.0	36,480.0
Made Disposition Ready - Pu Metal/Oxides/Other .....	0.0	0.0	910.0
<b>Transuranic Waste (TRU)</b>			
Treatment (m <sup>3</sup> ) .....	0.0	0.0	0.0
Storage (m <sup>3</sup> ) .....	1,849.0	4,209.0	4,214.0
Ship to DOE Disposal Site (m <sup>3</sup> ) .....	35.0	670.0	2,000.0
<b>Mixed Low-Level Waste (MLLW)</b>			
Treatment (m <sup>3</sup> ) .....	4,126.0	4,886.0	6,575.0
Storage - Total (m <sup>3</sup> ) .....	8,114.0	7,999.0	3,873.0
Disposal - DOE Onsite/Commercial (m <sup>3</sup> ) .....	6,527.0	2,886.0	6,575.0
<b>Low Level Waste (LLW)</b>			
Storage - Total (m <sup>3</sup> ) .....	9,576.0	8,614.0	11,178.0
Disposal - Ship to DOE Disposal Site (m <sup>3</sup> ) .....	2,669.0	2,630.0	2,050.0

## Site Description

The Rocky Flats Environmental Technology Site is located near Denver, Colorado, on about 11 square miles at the base of the Rocky Mountains. The Rocky Flats Plant was selected by the Atomic Energy Commission in 1951 as one of seven production plants in the United States Weapons Complex. The Rocky Flats Plant played an integral part in the Nation's nuclear defense. Its mission was to manufacture nuclear weapons components from materials such as plutonium, beryllium, and uranium. When operations ceased, large amounts of plutonium, plutonium compounds, and metallic residues remained in the production lines, tanks, and process furnaces at various facilities at the site. Significant volumes of hazardous and radioactive waste generated during production operations were also present throughout numerous buildings.

In 1991, the Rocky Flats Plant transitioned to a new mission; cleaning up contamination and waste from its past activities and transitioning its facilities to cleanup in a manner that is safe, environmentally and socially responsible, physically secure, and cost-effective. It was at this time that the Rocky Flats Plant became the Rocky Flats Environmental Technology Site. Adequate funding for the life of the Site Cleanup mission is a critical element as is the DOE's ability to overcome complex-wide barriers and to facilitate resolution of national issues of complex-wide integration for off-site shipment of special nuclear materials and radioactive waste for storage, treatment, and disposal. Availability of receiver sites is also essential to achieving closure by FY 2006. This includes the availability of the Waste Isolation Pilot Plant for transuranic and residue wastes, a DOE site for acceptance of plutonium metals and oxides, as well as some residues, and DOE and/or commercial facilities for disposal of low-level and mixed low-level waste.

The Rocky Flats Environmental Technology Site's cleanup and closure activities are currently organized into 29 Project Baseline Summaries each including a detailed life cycle work scope, schedule, and cost estimate built from over 20,000 individual work elements which are integrated into a single Critical Path schedule.

The Site is managed by a performance-based integrating management contractor whose contract was established consistent with the 1993 Government Performance Results Act which requires the establishment of program goals and development of measures to monitor contractor progress toward the achievement of those goals. The integrating management contractor plans and integrates work activities, manages subcontractors in performing work, provides support functions including quality assurance and site safety program direction. The Rocky Flats Field Office manages the integrating management contract, including setting and verifying performance goals, makes program decisions, and provides local oversight, public and regulatory interface on site work activities. A DOE Headquarters closure team provides intersite coordination on material shipment and disposition decisions and activities relating to site closure. Award and incentive fees have been established by the DOE to motivate the contractor to perform.

### Detailed Program Justification

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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The Rocky Flats Environmental Technology Site is managed through an incentivized integrated contract, with fixed-price subcontracts, to assure the most cost efficient service to the Government. The scope planned for FY 2000 has been reviewed and is appropriate to meet the goals of the site as outlined in the *Accelerating Cleanup: Paths to Closure* plan. The funds requested for FY 2000 are appropriate to perform the activities based on historical level of effort costs. An independent assessment of projects is currently in process.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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**HQNP-SI01-CL/Security Investigations**

Funding will be used to perform new security investigations and re-investigations for non-Federal employees in accordance with DOE Order requirements for the Rocky Flats site.

HQNP-S101-CL .....	0	948	1,278
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<p>Metrics</p> <p>No quantifiable corporate performance measures are associated with this project.</p>
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**RF-001/Buffer Zone Closure Project**

Remedial action activities are included within the Buffer Zone Closure Project which consists of 67 Individual Hazardous Substance Site. This project includes: operation of groundwater and surface water monitoring stations; design, construction, and operation of groundwater containment and treatment systems; remediation of Individual Hazardous Substance Sites/Potential Area Contamination; continuing landlord functions for the Building 130 cluster and operation of the firing range.

- # On-site transfer and off-site discharge of approximately 200 million gallons of Building 995 Wastewater Treatment Plant effluent and Rocky Flats Environmental Technology Site storm water.
- # Complete quarterly and annual reporting of groundwater sampling results.
- # Complete quarterly and annual reporting of surface water sampling results.
- # Conduct remediation planning for the 903 Pad to include:
  - ▶ limited sampling
  - ▶ decision document preparation
  - ▶ public/regulator involvement
  - ▶ potential treatability study
- # Operate groundwater management systems.

RF-001 .....	13,606	13,646	10,185
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(dollars in thousands)

	FY 1998	FY 1999	FY 2000
Metrics			
Remedial Action/Release Site			
Assessments .....	11.0	12.0	12.0
Cleanups .....	2.0	2.0	1.0

### RF-002/Waste Management Project

The Waste Management Project includes all activities that support the treatment, storage, and disposal of all wastes currently in the inventory and projected to be generated from other sites closure projects. Specific waste types include: low-level waste, mixed low-level waste, transuranic waste, transuranic mixed waste, hazardous waste, and other sanitary/uncontaminated waste. The scope of the project includes safe and compliant management on-site, in new and existing storage facilities; safe and compliant treatment, including construction of liquid waste treatment upgrade, of mixed wastes at on-site and off-site locations; and safe and compliant disposal at approved off-site repositories.

# In FY 2000, additional mixed low-level waste will be disposed as the saltcrete/pondcrete disposal project enters completion.

- Also, the disposal ready quantities of transuranic and transuranic mixed waste will increase as the Site's ability to characterize transuranic waste is also increased. Specific planned accomplishments include: (If disposal facility is not available - additional storage capacity will need to be constructed, in lieu of or in addition to disposal).
- ▶ Make 2,000 m<sup>3</sup> of transuranic/mixed transuranic waste disposal ready for off-site disposal.
  - ▶ Complete off-site disposal of 6,575 m<sup>3</sup> of mixed low-level waste.
  - ▶ Complete off-site disposal of 2,050 m<sup>3</sup> of low-level waste.
  - ▶ Complete off-site disposal of 186 m<sup>3</sup> of hazardous waste.
  - ▶ Complete off-site commercial disposal of 16,400 m<sup>3</sup> of uncontaminated/sanitary waste.
  - ▶ Maintain existing landfill in "stand-by" as a disposal contingency.
  - ▶ Continue operation and maintenance of the Sewage Treatment Plant.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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- ▶ Continue operation and maintenance for transuranic, transuranic mixed, low-level, mixed low-level and other regulated waste storage areas.
- ▶ Initiate operation of the shipping/staging module and the characterization module for transuranic/transuranic mixed waste.
- ▶ Continue operation and maintenance for process wastewater treatment in Building 374.
- ▶ Continue characterization and repackaging activities to prepare disposal ready volumes of transuranic/transuranic mixed waste for future shipment to the Waste Isolation Pilot Plant.
- ▶ Continue completion of Site Treatment Plan and Compliance Order commitments, Rocky Flats Cleanup Agreement commitments, Chemical Management Consent Order.

RF-002 ..... 56,508 68,122 79,775

Metrics			
Remedial Action/Release Site			
Assessments .....	1.0	0.0	0.0
Transuranic Waste (TRU)			
Storage (m <sup>3</sup> ) .....	1,849.0	4,209.0	4,214.0
Ship to DOE Disposal Site .....	35.0	670.0	2,000.0
Mixed Low-Level Waste (MLLW)			
Treatment (m <sup>3</sup> ) .....	4,126.0	4,886.0	6,575.0
Storage (m <sup>3</sup> ) .....	8,114.0	7,999.0	3,873.0
Disposal - DOE Onsite/Commercial (m <sup>3</sup> ) .....	6,527.0	2,886.0	6,575.0
Low Level Waste (LLW)			
Storage - Total (m <sup>3</sup> ) .....	9,576.0	8,614.0	11,178.0
Disposal - Ship to DOE Disposal Site (m <sup>3</sup> ) .....	2,669.0	2,630.0	2,050.0

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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**RF-003/Remediation Waste and Contingent Storage Project**

The purpose of this project is to provide the resources necessary for the development of a new low-level and mixed low-level waste containerized storage facility for storage of remediation wastes. The facility will provide capacity and capability to store, stage, and ship large volumes of remediation waste anticipated to be generated from the decontamination, decommissioning, and demolition of site facilities, as well as from restoration activities associated with contaminated areas at the Site.

# Project curtailed.

RF-003 .....	-9	1	0
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<p>Metrics          No quantifiable corporate performance measures are associated with this project.</p>
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**RF-004/Special Nuclear Material Capital Support Project**

The Special Nuclear Material Capital Support project contains two subprojects. The Building 371 upgrade subproject responds to Defense Nuclear Facilities Safety Board Recommendation 94-3 for facility upgrades to withstand defined seismic events. The special nuclear material support subproject provides capital and General Plant Project upgrades to facilities or projects within the nuclear production.

# Construction of the cooling tower will be completed, tested, and turned over for operations.

RF-004 .....	9,463	2,477	3,930
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<p>Metrics          No quantifiable corporate performance measures are associated with this project.</p>
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(dollars in thousands)

FY 1998	FY 1999	FY 2000
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**RF-006/Special Nuclear Material Consolidation Project**

The Special Nuclear Material Consolidation project manages the intra-site transport of plutonium metals, oxides, and residues between facilities as necessary for mortgage reduction and interim storage and staging of these materials for processing or off-site shipment. This project includes consolidation of special nuclear material from other facilities into Building 371, and tracking and closure of plutonium and enriched uranium Environmental Safety and Health vulnerabilities.

# Transfer of special nuclear material residues, not scheduled for processing, and holdup from gloveboxes and ventilation ducts from Buildings 776/777 are scheduled to be completed.

RF-006 .....	3,008	2,234	1,287
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Metrics No quantifiable corporate performance measures are associated with this project.
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**RF-007/New Pu Interim Storage Vault**

Construction of a new Interim Plutonium Storage Facility was curtailed. Conceptual design was completed in FY 1997. Miscellaneous activities were supported in FY 1998.

# No activity.

RF-007 .....	17	0	0
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Metrics No quantifiable corporate performance measures are associated with this project.
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**RF-008/Plutonium Metals and Oxides Stabilization**

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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The Plutonium and Oxides Stabilization project supports the packaging of all material greater than 50 weight percent plutonium per the requirements of DOE-STD-3013, for interim storage at the Rocky Flats Environmental Technology Site for eventual off-site disposition. Repackaging addresses Defense Nuclear Facilities Safety Board Recommendation 94-3 by placing dispersable plutonium oxides in more robust containment. Installation, testing and safety documentation for the Plutonium Packaging System substantially will be completed in FY 1999.

# Operate Stabilization Packaging System, and stabilize/repackage at least 910 containers.

# Continue size reduction operation for large metal items, completing at least half of the items.

RF-008 .....	7,206	15,603	14,593
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Metrics			
Nuclear Material Stabilization			
Made Disposition Ready - Pu Metal/Oxides/Other .....	0.0	0.0	910.0

**RF-009/Plutonium Solid Residue Stabilization Project**

Both DOE's Plutonium Vulnerability Study and the Defense Nuclear Facilities Safety Board Recommendation 94-1 identified the unstabilized residues at the Rocky Flats Environmental Technology Site as a potential hazard. The project is to conduct the minimum processing necessary to prepare solid residues to address Defense Nuclear Facilities Safety Board Recommendation 94-1. The residues will be processed to meet the Interim Safe Storage Criteria and the Waste Isolation Pilot Plant Waste Acceptance Criteria in accordance with the Site Integrated Stabilization Management Plan Version 7.0. Additionally, the Settlement Agreement and Compliance Order on Consent No. 93-04-23-01 with the State of Colorado requires the processing of the backlog of mixed residues to put them in a shippable and/or disposable form as expeditiously as reasonably possible and to remove them from plant site as expeditiously as reasonably possible once an off-site disposal facility becomes available.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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Processing of solid residues includes characterization, stabilization, safeguards termination limit compliance, repack, and certification for disposal. The material to be processed includes all the backlog solid residues generated as byproducts from plutonium production operations. Solid residues are categorized by type of material identified by an Item Description Code. The inventory of solid residues consists of approximately 106 metric tons of bulk material in 99 item description codes with an average plutonium concentration of about 3 percent. The residues are stored in approximately 4,000 drums and 4,000 containers. Four separate processes are required for this material. Wet residues and combustibles will be processed in one line in Building 371. Salt, ash, and dry residues will be processed in three lines in Building 707. Processing commenced in November 1997 and will be complete in 2002. Shipping of the residues off-site will be complete in FY 2004. The project consists of two subprojects: the Special Nuclear Material Solid Residue Development project; and, the Special Nuclear Material Solid Residue Processing project.

- # Process 8,000 kilograms of salt residues in FY 2000.
- # Repack 7,950 kilograms of ash residues in FY 2000.
- # Ship all 317 kilograms of plutonium fluorides to the Savannah River Site.
- # Continue stabilization of ash and wet combustible residues.

RF-009 .....	56,263	49,888	64,882
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Metrics			
Nuclear Material Stabilization			
Stabilized - Plutonium Residue (kg Bulk) .....	5,004.0	32,662.0	36,480.0

**RF-010/Plutonium Liquid Stabilization**

The Plutonium Liquid Stabilization project is planned to be completed by the end of FY 1999. Liquid stabilization involves the removal of 23,925 liters of plutonium liquid from tanks, piping, and other containers stored in Buildings 371, 559, 771, 776, 777, and 779; processing of the liquids to convert them to various forms for safe interim storage; mitigation of hydrogen in tanks; and mixed residue Resource Conservation and Recovery Act tank closure.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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# No activity, project complete.

RF-010 .....	12,473	8,672	0
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Metrics			
Nuclear Material Stabilization			
Stabilized - Plutonium Solution (L) .....	3,035.0	0.0	0.0

**RF-011/Uranium Disposition Project**

The Uranium Disposition project supports activities to remove plutonium contamination from stored enriched uranium hemishells to permit off-site shipment and acceptance by Oak Ridge Y-12; remove residual highly enriched uranyl nitrate by removing the Raschig rings in the tanks from Rocky Flats; and to continue highly enriched uranyl nitrate conversion to highly enriched uranium oxide off-site. This project is planned for completion in FY 1999.

# No activity.

RF-011 .....	587	1,048	0
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Metrics			
No quantifiable corporate performance measures are associated with this project.			

**RF-012/Special Nuclear Material Shipping Project**

The Special Nuclear Material Shipping project includes pits, enriched uranium, composite parts, plutonium metal and oxides, scrub alloy and other material. This project element supports all activities necessary to ensure the availability of off-site shipping containers, procedure development, and packaging and shipping of spent nuclear material. The 2010 baseline supports shipments of plutonium metal and oxides to Savannah River Site beginning in 2002. In order to support a 2006 closure, shipments will begin in January 2000 to the K-Area Nuclear Material Storage project located at the Savannah River Site. The FY 2000 scope reflects a transfer in funding responsibility for Type B (9975) shipping containers from the Savannah River Site to this Rocky Flats project.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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# Fund procurement of 2,100 Type B (9975) shipping containers to support shipment of plutonium metal and oxides to Savannah River Site K-Area.

# Ship 700 containers of plutonium metal and oxides to the Savannah River Site K-Area.

# Complete four shipments of scrub alloy to Savannah River Site.

RF-012 .....	3,475	7,166	17,166
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**Metrics**

No quantifiable corporate performance measures are associated with this project.

**RF-013 Closure Caps Project**

The scope of the Closure Cap project includes design and construction of the caps once the facilities have been demolished in the 300 area and 700 area. This project also includes regrading and revegetating the industrial area and removal of pavement and foundations, if necessary. Construction of the caps will begin in FY 2006 and will cover the 300 area, 700 area, solar ponds, and possibly the landfill. Periodically, technology updates will be evaluated and cost estimates will be updated.

# No activity.

RF-013 .....	0	30	0
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**Metrics**

This project has associated corporate performance measures; however, no measures are reportable in the three year budget profile.

**RF-014/Industrial Zone Closure Project**

The purpose of the Industrial Zone Closure project is to continue operations of the facilities within the industrial zone until such time as operations can be discontinued and the facilities dismantled. The industrial zone consists of the majority of the facilities located south of the protected area and within the perimeter fence.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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The facilities in the industrial zone consist of buildings with tenants that comprise the infrastructure for the site which includes services (Fire Department, Garage, Metrology, Security, etc.) utilities (Water Plant, Steam Plant, electrical distribution, etc.) and administrative services (finance, procurement, payroll, etc.). These services are required to support the risk reduction, deactivation, decommissioning and closure activities planned over the remaining life of the plant. The industrial zone also contains one production facility, Building 444, a uranium/beryllium fabrication/machining facility that was shut down in 1989 without any deactivation or decontamination activities, including equipment removal. Building 460 was also a former production facility, providing stainless steel machining for weapons parts, but that facility has been converted to an administrative building housing DOE personnel.

- # Landlord functions and support activities will continue.
- # Complete remediation of Bowman's Pond release site.
- # Complete decommissioning of one facility.
- # Submit annual Tier II Chemical Inventory Report.

RF-014 .....	22,269	23,127	19,799
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Metrics			
Facility Decommissioning			
Assessments .....	0.0	22.0	1.0
Cleanups .....	8.0	0.0	1.0
Remedial Action/Release Site			
Assessments .....	5.0	1.0	3.0
Cleanups .....	0.0	0.0	1.0

**RF-015/Miscellaneous Production Zone Cluster Closure Project**

The scope of the Cluster Closure project is summarized below for the six major activities.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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- ▶ Facility Landlord Functions: Conduct Limiting Conditions for Operations surveillance's on Vital Safety Systems as required by the building specific authorization basis document (i.e. fire systems, criticality alarm systems, heating, ventilation, and air conditioning systems). Conduct routine compliance surveillance/inspections on Resource Conservation and Recovery Act units, security systems, radiological control requirements, industrial safety, etc. Conduct baseline maintenance activities on Vital Safety Systems, facility support systems/structures, environmental compliance and waste management support systems, security systems, etc. Provide operations management and technical support for building baseline activities and in support of risk reduction activities.
- ▶ Deactivation: The scope of the deactivation phase includes all of the physical activities to prepare and turn over a building cluster to decommissioning as agreed upon in the building specific End State Criteria.
- ▶ Decommissioning: The scope of the decommissioning phase includes all of the physical activities to decontaminate, dismantle, and demolish building clusters in preparation for individual hazardous substance site remediation and final closure.
- ▶ Closure: The scope of this activity includes the final close-out of the cluster site upon completion of decommissioning and individual hazardous substance site remediation, and includes the regulatory and project close-out documentation required by the Department of Energy and the Rocky Flats Cleanup Agreement.
- ▶ Remediate/Contain High Risk Individual Hazardous Substance Sites: The scope of this activity includes remediation or containment as appropriate to close the High Risk individual hazardous substance sites in the Miscellaneous Production Zone. Typically, remediation will include excavation and treatment such as thermal desorption and/or containment could include capping or closure in place.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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- ▶ There are 30 individual hazardous substance sites in the Miscellaneous Production Zone that are No Further Action Sites and will undergo No Further Action Justification to delete these individual hazardous substance sites from the Rocky Flats Cleanup Agreement under this project. The High Risk individual hazardous substance sites include: Rad Site Building 559 (Individual Hazardous Substance Site 159); Under Building Contamination (2 buildings); Solar Ponds (Individual Hazardous Substance Site 101).

# The landlord functions and support activities will continue in the operating buildings.

# Complete decommissioning of nine facilities.

RF-015 . . . . . 8,828 11,488 14,969

Metrics			
Facility Decommissioning			
Assessments . . . . .	8.0	14.0	1.0
Cleanups . . . . .	0.0	8.0	9.0
Remedial Action/Release Site			
Assessment . . . . .	1.0	0.0	0.0
Facility Deactivation			
Completed Deactivations . . . . .	0.0	8.0	0.0

**RF-016/Building 371 Cluster Closure Project**

Prior to the end of the Cold War, the purpose of the Building 371 facility was threefold: (1) to recover plutonium from all residues generated by plutonium-related fabrication, assembly, and research activities throughout Rocky Flats Plant, (2) to convert the recovered plutonium into high purity metal buttons, and (3) to recover associated americium and convert it to americium dioxide, which is a sellable product. Included in the 371 Cluster Closure project are Buildings 371, 373, 374, 374A, 377, 378, 381, T371H, T371J, T371K, 376, T376A, T371I, 371A and tanks 163, 164, 165, 166, 167, 168, 169, 170, 171, 224, 225, 226, 227, and 228.

Resumption efforts have been undertaken in several buildings to begin processing, stabilizing, and repackaging the special nuclear material to make it safe to store, handle, and ship.

# Initiate residue stabilization and repack of high-efficiency particulate air filters and dry combustibles.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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# Continue consolidation and shipment of special nuclear material.

# Continue support of the International Atomic Energy Agency agreement by storing, assaying, and inspecting that material.

RF-016 ..... 15,930 19,384 20,014

**Metrics**

This project has associated corporate performance measures; however, no measures are reportable in the three year budget profile.

**RF-017/Building 707/750 Cluster Closure Project**

During the Cold War period, Building 707 was used to perform all metallurgical and assembly processes for manufacturing plutonium components. Different modules located in Building 707 housed operations such as casting, rolling, forming, machining, assembly and testing of materials. In addition, plutonium items were stored in vaults such as the X-Y Retriever. Resumption efforts have been undertaken in Building 707 to begin processing, stabilizing, and repackaging the special nuclear material to make it safe to store, handle, and ship. This effort will continue in Building 707 through approximately FY 2002.

# Maintain landlord functions and begin special nuclear material removal operations.

RF-017 ..... 16,942 19,880 18,669

**Metrics**

**Facility Decommissioning**

Assessments .....	0.0	1.0	0.0
Cleanups .....	2.0	0.0	0.0

**RF-018/Building 771/774 Cluster Closure Project**

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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Specifically, this project is to accomplish a transition of Building 771/774 and 771A Clusters from an operating nuclear facility and support facilities to a closed and remedied site. The most efficient way to execute this strategy to plan an effort as a “closure project,” and not a “deactivation project” followed by a “decommissioning project.” In FY 1998, Building 771/774 Cluster was transferred to the decommissioning subcontractor, and deactivation and decommissioning activities have begun.

# Drain five and remove two process piping systems by June 2000.

# Six decommissioning worksets will be completed. This entails dismantlement, size reduction and packaging for shipment of gloveboxes, tanks, and other equipment.

# Close the Material Access Area by December 1999.

RF-018 .....	19,097	20,524	20,764
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Metrics			
Facility Decommissioning			
Assessments .....	0.0	35.0	0.0

**RF-019/Building 776/777 Cluster Closure Project**

As an effort to stabilize material progresses, and as buildings are no longer required to process and store special nuclear material, it is necessary to deactivate and decommission these nuclear and support facilities to further minimize risk, reduce mortgage costs, and to fulfill the site closure mission.

Buildings 776/777 performed manufacturing and assembly of special order and war reserve weapons, disassembly, processing and recovery from site returns, waste operations including size reduction and incineration, and several developmental programs including nondestructive testing, joining, and coatings. This process produced significant amounts of plutonium contaminated lubricants, shavings, and secondary residues that were temporarily stored and periodically recycled back into the plutonium manufacturing process. Included in the 776/777 Cluster are Buildings 776, 777, 701, 702, 703, 712, 713, 781 and tanks 199, 200, 201, 202, 203, 207, 244, and 245. When all nuclear production was halted in 1989, special nuclear materials were left in place without any handling or repackaging pending resumption of nuclear operations.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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- # Continue landlord functions for the 776/777 Cluster.
- # Remove holdup from five areas to below safeguard termination limits.
- # Begin deactivation, planning, and regulatory documentation development.

RF-019 ..... 12,728 16,058 15,486

Metrics			
Facility Decommissioning			
Assessments .....	0.0	20.0	0.0

**RF-020/Building 881 Cluster Closure Project**

The Building 881 Cluster Closure project includes 881, 865, 883, 881 Trailers, 881/883 Stacks, 881/883 Tunnel, and Tanks. The strategy for the 881, 865/883 Cluster prior to beginning active decontamination and decommissioning in FY 2006 is to systematically shut down rooms, areas and entire facilities while carrying out minimum surveillance and maintenance activities required to ensure regulatory compliance and safe operations of the facilities. Safe shutdown is being undertaken so that the required surveillance, monitoring and maintenance of the buildings can be reduced, thus freeing-up funding for other decontamination and decommissioning and closure activities. It is anticipated that the shutdown activities which are performed prior to decontamination and decommissioning will be accomplished in three overlapping phases and will result in the minimum funding level that is required to maintain the buildings prior to the start of decontamination and decommissioning.

- # Complete the safe shutdown (closure/padlocking) of 22 rooms in the Building 881/865/883 Clusters.
- # Commence Building 881 deactivation activities.

RF-020 ..... 5,064 5,083 4,542

Metrics			
Facility Deactivation			
Completed Deactivations .....	2.0	0.0	0.0
Facility Decommissioning			
Assessments .....	2.0	0.0	0.0

(dollars in thousands)

	FY 1998	FY 1999	FY 2000
Cleanups .....	2.0	0.0	0.0

**RF-021/Building 991 Cluster Closure Project**

The primary function of Building 991 Cluster is storage of transuranic waste in the protected area. Building 991 Cluster is targeted to be the only location in the protected area for containerized transuranic and transuranic mixed waste, including waste generated from residue processing and decontamination and decommissioning of other facilities.

# Only landlord functions are planned in the Building 991 Cluster for FY 2000. Other closure actions are not scheduled until FY 2003.

RF-021 .....	1,048	1,471	1,146
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**Metrics**

This project has associated corporate performance measures; however, no measures are reportable in the three year budget profile.

**RF-022/Building 779 Cluster Closure Project**

The Building 779 Cluster Closure project is to close and demolish all the facilities in the cluster, and to Remediate contaminants in the underlying soils in accordance with cleanup standards for the site.

The Building 779 Cluster consists of the primary building (Building 779), two filter plenum buildings, nine storage tanks, two tunnels and ten support buildings. Building 779 is a two-story, concrete structure with approximately 68,000 square feet of floor area. The building was primarily utilized for conducting research and development involving nuclear weapons materials processes, and approximately 60 percent of the space is contaminated or potentially contaminated. The building laboratories and shops are filled with mechanical and chemical process equipment, including approximately 100 gloveboxes. The primary contaminant is plutonium, but the building also contains small quantities of depleted uranium, beryllium and more than 4,000 chemicals, some of which are radiologically contaminated. The building exhaust system and two plenum buildings have plutonium contaminated ducts and high-efficiency particulate air filters. Completion of decommissioning in FY 2000 will mark the demolition of the first major DOE plutonium facility.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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# Complete demolition of 23 facilities in the Building 779 cluster.

# Cluster closure will be performed.

RF-022 .....	19,561	20,495	7,200
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Metrics			
Facility Decommissioning			
Assessments .....	24.0	0.0	0.0
Cleanups .....	0.0	1.0	23.0

**RF-023/Utilities and Infrastructure Project**

The Utilities and Infrastructure project provides the resources necessary to maintain the physical plant infrastructure. This includes activities which produce and distribute utilities (electricity, water, steam, natural gas, and inert gases) for use throughout the site. Other services include cafeteria food services, metrology laboratories, emergency preparedness, logistics services, fire protection and prevention, laundry operations, and filter services. Support services provide for the direct support of closure operations through property removal and disposal, transportation support, fire alarms systems maintenance, and fire systems inspection and maintenance.

# Annual Site Exercise - 30 Jun 2006.

# Draft Emergency Readiness Assurance Program Revision Document - 30 Sep 2000.

# Complete Annual Asset Disposition Pilot Program Report - 30 Oct 1999.

# Sensitive Property Inventory Document - 30 Sep 2000.

# Annual Update of Site Safeguards and Security Plan Document - 7 Jun 2000.

RF-023 .....	41,906	40,574	41,905
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Metrics
No quantifiable corporate performance measures are associated with this project.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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### **RF-024/Safeguards and Security Project**

The Safeguards and Security project provides for the physical protection, control, and accountability of special nuclear material and classified matter at Rocky Flats. This project supports site-wide safeguards and security program management, and the planning resources necessary to develop and implement the site Safeguards and Security Plan and associated security/emergency response plans. Protective program operational activities including armed protective force, special response team, physical security system alarm response and maintenance, access control, and property protection personnel and capabilities are also supported by this project. In addition, it includes special nuclear material control and accountability activities which assure secure and accurate measurement, reporting, and intra-site transportation of material drive these funding requirements. Internal security responsibilities, personnel security assurance programs, classified information management and control, and computer/communications/and technical security are addressed by this project.

#### **# Master Safeguards and Security Agreement Project.**

- ▶ Construction Complete, Explosive Detection System - 14 Jul 2000.
- ▶ Construction Complete, Grenade Screens - 17 Jul 2000.

#### **# Safeguards and Security Operations Project.**

- ▶ Submit Validatable Site Safeguards and Security Plan Annual Update - 1 Mar 2000.
- ▶ Annual Force on Force - 7 Jun 2000.
- ▶ Annual Critical System Element Effectiveness Test - 31 Jul 2000.
- ▶ Annual Update of Site Emergency Response Plan - 30 Sep 2000.
- ▶ Identify, Verify, and Conduct Initial and Annual Reviews of all Personal Security Assurance Program Positions - 30 Sep 2000.
- ▶ Annual Update of Materials Control and Accountability Plan - 31 Mar 2000.
- ▶ Update Integrated Measurement Plan (For Accountability Measurements) - 1 Apr 2000.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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- ▶ Complete characterization of Holdup Measurements of Candidate Decontamination and Decommissioning Buildings - 30 Sep 2000.

RF-024 ..... 36,792 45,002 43,531

Metrics No quantifiable corporate performance measures are associated with this project.
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**RF-025/Infrastructure Improvement/Replacement Project**

The Infrastructure Improvement/Replacement project includes a number of subprojects whose purpose is to maintain the infrastructure at the site and provide for safe and secure operations during site closure. These subprojects were some of the traditional line-item construction projects and include: Infrastructure Capital Equipment subproject that provides upgrades for improved operational efficiencies to support downsizing of facilities; Underground Storage Tank subproject that replaces 22 underground fuel storage tanks to comply with 40 CFR 280 and Colorado Compliance Regulation 7 CCR 1101-14; Health Physics/Representative Effluent Samplers subproject to replace effluent record samplers; Air Monitoring Improvement subproject to replace Selective Alpha Air Monitors; Plant Fire/Security System Replacement subproject to replace the primary fire and security alarm systems in certain facilities; and the Criticality Alarms and Plant Annunciation System Upgrade subproject to replace the obsolete and non-compliant Life Safety/Disaster Warning system in plutonium buildings.

# Capital Equipment Construction - Complete 30 Sep 2000.

# Construction Projects - Complete 30 Sep 2000.

# Plant Fire / Security System Replacement Subproject Fire System Installation - Complete 2 Aug 2000.

RF-025 ..... 19,907 17,782 8,026

Metrics No quantifiable corporate performance measures are associated with this project.
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(dollars in thousands)

FY 1998	FY 1999	FY 2000
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**RF-027/Analytical Services Project**

The Analytical Services project provides sampling and analytical chemistry services in support of site operations and closure activities. Analytical services satisfy the requirements of Federal, State, and local agencies for characterization of environmental contamination, facility waste, environmental monitoring, industrial hygiene, radiological health, medical monitoring, nuclear material processing and stabilization, and nuclear material control and accountability.

# The Analytical Services project will continue to support the following Rocky Flats Environmental Technology Site projects:

- 1) Buffer Zone Closure Project (RF-001);
- 2) Waste Management Project (RF-002);
- 3) Closure Cap Project (RF-013);
- 4) Industrial Zone Closure Project (RF-014);
- 5) Miscellaneous Production Zone Cluster Closure Project (RF-015);
- 6) Building 371 Cluster Closure Project (RF-016);
- 7) Building 707/750 Cluster Closure Project (RF-017);
- 8) Building 881 Cluster Closure Project (RF-020);
- 9) Utilities and Infrastructure Project (RF-023);
- 10) Safeguards and Security Project (RF-024);
- 11) Kaiser-Hill Project Management project (RF-030).

RF-027 .....	9,957	7,122	7,807
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Metrics No quantifiable corporate performance measures are associated with this project.
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(dollars in thousands)

FY 1998	FY 1999	FY 2000
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**RF-029/Rocky Flats Office / DOE Management**

The Rocky Flats Field Office Program Support project provides for the Rocky Flats Field Office management of the Integrating Management Contract for the conduct of all site activities, including developing and monitoring of integrating management contractor performance measures, program execution guidance, Operational Readiness Reviews, facility representatives, the life-cycle baseline, budget management, prioritization, updates to the *Accelerating Cleanup: Paths to Closure* plan, and conduct of the Emergency Management Program. It also provides activities which support the Rocky Flats Cleanup Agreement, other Congressionally mandated programs (i.e., Technology Development, Health Studies, Worker Community Transition, etc.) legal expenses relating to the continuing class actions and other civil litigation activities of former site management and operations contractors under the "litigation and claims" clause of those contracts, and financial assistance to the State of Colorado.

# FY 2000 accomplishments are driven by the level of effort necessary to accomplish Congressionally mandated programs and to compliment planned site closure goals and accomplishments. Work will include continuation of activities to require the production and refinement of performance measures, fiscal management, work prioritization integration, and coordination, updates to the *Accelerating Cleanup: Paths to Closure* plan and preparation of Program Execution Guidance and the life cycle baseline.

RF-029 .....	20,797	17,855	18,800
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<p>Metrics</p> <p>No quantifiable corporate performance measures are associated with this project.</p>
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(dollars in thousands)

FY 1998	FY 1999	FY 2000
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### **RF-030/Kaiser-Hill Project Management**

The Kaiser-Hill Project Management project comprises all of the necessary Integrating Management Contractor support, direction and management for the Rocky Flats Site. This management and support are integral to the safe and efficient execution of work required to achieve accelerated cleanup and risk reduction at Rocky Flats. Much of this support and management will diminish significantly as plutonium operations are curtailed; however, in most areas, some effort will be required until all decommissioning, waste, and remediation activities are complete.

Kaiser-Hill provides planning and integration services that support the entire site by developing, implementing, and monitoring the progress of strategic plans to close Rocky Flats; assisting in the identification of performance measures; guiding the development of the annual work plan; setting standards for site-wide business practices, cost estimating and scheduling; creating and maintaining the Integrated Site-wide Baseline; maintaining project control systems; and conducting monthly program/site activity reviews. Kaiser-Hill also provides performance oversight including nuclear performance assurance, which demonstrates the readiness to conduct nuclear activities prior to actual operations; Price-Anderson Amendment Act compliance; and interfacing with the site's nuclear regulatory agencies such as the Defense Nuclear Facilities Safety Board and staff. The Integrating Management Contractor provides programmatic management for all nuclear operations, environmental remediation, and waste activities. The Integrating Management Contractor also provides the general management and oversight for all site expense funded projects.

- # Manage, guide, and direct all closure projects, the Nuclear Operations Program, the architect engineer/construction/construction management subcontract and all oversight and planning exercises in a manner as such that they meet or exceed their respective program's/project's activities scheduled in the life-cycle baseline within or under budget.
- # Provide safety, technical, and independent assessment programs that provide for a safe work environment in a cost-effective manner for the Rocky Flats Closure Project.
- # Oversee an annual 5 percent reduction in infrastructure and management from increased efficiencies.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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# Ensure compliance activities, including documentation and reporting, are performed on schedule and with necessary completeness and accuracy.

RF-030 ..... 122,949 127,068 120,731

**Metrics**

No quantifiable corporate performance measures are associated with this project.

**RF-034/Management Project**

This project supports closure of the Rocky Flats Project by managing and providing necessary and sufficient executive management, financial and administrative functions. This project includes all of the site's management (overhead), direction, general and administrative and base fees for Kaiser-Hill and their major subcontractors.

# Use re-engineering and business process improvement techniques to:

- ▶ Improve operating efficiencies and allow an acceleration of the site closure schedule.
- ▶ Reduce headcount and resource costs, thereby allowing additional funding to be applied to direct closure projects.
- ▶ Finalize the consolidation of vendors and subcontractors to reduce administrative burden and cost.
- ▶ Negotiate an extension to existing insurance programs or establish new insurance programs, as necessary, to meet site closure requirements.
- ▶ Finalize all leases for off-site facilities, to support Closure projects and eliminate the on-site facilities costs of support organizations.
- ▶ Finalize the extend/recompete decisions on all major subcontractors to Kaiser-Hill.

# Complete a number of computer systems and communications projects such as:

- ▶ Remote access servers to allow an off-site workforce to continue to support closure projects.

(dollars in thousands)

FY 1998	FY 1999	FY 2000
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- ▶ Wireless communication integration to meet the needs of a mobile decontamination and decommissioning workforce and to allow communication to continue as buildings (and the communications infrastructure within them) are demolished.
- ▶ Modularization of Telephone/Data Communications Systems to replace centralized systems and allow services to specific site population areas.

# Payment of contractor environmental pollution insurance premium (paid every three years).

RF-034 .....	95,728	94,452	100,725
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Metrics No quantifiable corporate performance measures are associated with this project.
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Total, Rocky Flats .....	632,100	657,200	657,210
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### Explanation of Funding Changes from FY 1999 to FY 2000

FY 2000 vs. FY 1999 (\$000)
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#### HQNP-SI01-CL/Security Investigations

# Increase in funding to support required reinvestigations and new investigations to be in compliance with DOE Orders. ....	330
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#### RF-001/Buffer Zone Closure Project

# Decrease reflects completion of Trench T-1 waste treatment and shipment and equipment decontamination in FY 1999. ....	-3,461
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#### RF-002/Waste Management Project

# Increase is due to increased shipments of transuranic waste and mixed low-level waste, and increased quantities of mixed low-level waste treatment. ....	11,653
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#### RF-003/Remediation Waste & Contingent Storage Project

# Decrease reflects curtailment of project. ....	-1
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#### RF-004/Special Nuclear Material Capital Support Project

# Increase is necessary to support completion and testing of cooling tower upgrade. ...	1,453
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FY 2000 vs. FY 1999 (\$000)
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**RF-006/Special Nuclear Material Consolidation Project**

# Decrease due to lower level of intra-building special nuclear material transfers as more special nuclear material is consolidated. . . . . -947

**RF-008/Plutonium Metals and Oxides Stabilization**

# Decrease reflects completion of installation and testing of the Plutonium Packaging System in FY 1999 . . . . . -1,010

**RF-009/Plutonium Solid Residue Stabilization Project**

# Increase reflects shipments of plutonium fluorides to the Savannah River Site and increased levels of stabilization for remaining residue categories, including procurement of additional pipe components. . . . . 14,994

**RF-010/Plutonium Liquid Stabilization**

# Decrease is due to project completion in FY 1999. . . . . -8,672

**RF-011/Uranium Disposition Project**

# Decrease is due to project completion in FY 1999. . . . . -1,048

**RF-012/Special Nuclear Material Shipping Project**

# Increase is due to transfer of funding responsibility for 9975 shipping containers from the Savannah River Site K-Area Nuclear Material Storage subproject to Rocky Flats. 10,000

**RF-013/Closure Caps Project**

# Decrease due to completion of initial design investigations for construction of the closure caps. . . . . -30

**RF-014/Industrial Zone Closure Project**

# Decrease reflects lower landlord costs resulting from deactivation and decommissioning activities. . . . . -3,328

**RF-015/Miscellaneous Production Zone Cluster Closure Project**

# Increase is due to slightly higher decommissioning activities for the miscellaneous facilities within the protected area. . . . . 3,481

**RF-016/Building 371 Cluster Closure Project**

# Increase due to additional support for residue stabilization, metal and oxide stabilization and special nuclear material shipping activities. . . . . 630

**RF-017/Building 707/750 Cluster Closure Project**

# Decrease reflects slightly lower costs resulting from consolidation/removal of special nuclear materials from Building 707. . . . . -1,211

FY 2000 vs. FY 1999 (\$000)
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**RF-018/Building 771/774 Cluster Closure Project**

# Increase is due to slightly higher level of decommissioning activities within Building 771 Cluster. . . . . 240

**RF-019/Building 776/777 Cluster Closure Project**

# Decrease is due to lower surveillance costs resulting from special nuclear material consolidation and holdup removal activities. . . . . -572

**RF-020/Building 881 Cluster Closure Project**

# Decrease is due to lower surveillance costs resulting from room shutdowns within the building cluster. . . . . -541

**RF-021/Building 991 Cluster Project**

# Decrease is due to lower storage costs for transuranic waste as a result of increased shipments to the Waste Isolation Pilot Plant. . . . . -325

**RF-022/Building 779 Cluster Closure Project**

# Decrease reflects completion of cluster demolition by June 2000 . . . . . -13,295

**RF-023/Utilities and Infrastructure Project**

# Increase is due to the expansion of infrastructure support for stabilization, shipping, and decommissioning activities. . . . . 1,331

**RF-024/Safeguards and Security Project**

# Decrease reflects reduced safeguards and security requirements due to closure of Building 771 Material Access Area and consolidation of special nuclear material. . . . -1,471

**RF-025/Infrastructure Improvement/Replacement Project**

# Decrease is due to completion of most capital and constructions projects in Buildings 371, 664, 115, 121, and 764 in FY 1999. . . . . -9,756

**RF-027/Analytical Services Project**

# Increase is due to the expansion of analytical and sampling support for stabilization, shipping, and decommissioning activities. . . . . 685

**RF-029/Rocky Flats Office - DOE Management**

# Increase is due to anticipated increased activities associated with the Kaiser-Hill contract expiration in June 2000. . . . . 945

**RF-030/Kaiser-Hill Project Management**

# Decrease is due to lower contractor management costs and shift of support costs to more direct work. . . . . -6,337

FY 2000 vs. FY 1999 (\$000)
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**RF-034/Management Project**

# Increase due to the environmental pollution insurance premium (paid every three years) and upgrading of the communication system. ....	6,273
Total Funding Change, Rocky Flats .....	<u>10</u>