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# Albuquerque Operations Office

## Ten Year Plan

July 31, 1996

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# **Attachment II**

Albuquerque Operations Office

Attachment II Summary Budget Projections									
	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>(Provide B/A and B/O in millions of dollars)</b>									
<b>I. High Level Waste</b>									
A. Storage (prior to treatment)									
B. Treatment (roll up by project)									
C. Long-term storage (roll up by project)									
<b>II. Transuranic Waste</b>									
A. Storage	8.454	7.485	7.502	10.002	10.002	10.002	10.002	5.502	5.502
B. Treatment (roll up by project)	6.451	12.757	14.07	14.07	14.07	14.07	14.07	14.07	14.07
C. Disposal (roll up by project)	0.063	0.065	0.066	0.068	0.068	0.068	0.068	0.068	0.068
D. Post-Project Completion Surveillance and Maintenance									
<b>III. Mixed low level waste</b>									
A. Storage	4.01	3.975	3.917	3.917	3.917	3.917	3.917	3.917	3.917
B. Treatment (roll up by project)	2.406	1.842	1.889	1.898	1.898	1.898	1.898	1.898	1.898
C. Disposal (roll up by project)	10.706	13.876	14.187	10.297	7.61	7.907	8.215	8.531	8.859
D. Post-Project Completion Surveillance and Maintenance									
<b>IV. Low level waste</b>									
A. Storage	1.796	2.012	2.012	2.012	2.012	2.012	2.012	2.012	2.012
B. Treatment (roll up by project)	8.135	8.665	8.665	8.665	8.665	8.665	8.665	8.665	8.665
C. Disposal (roll up by project)	8.511	9.22	9.22	9.107	9.107	9.107	9.107	9.107	9.107
D. Post-Project Completion Surveillance and Maintenance									
<b>V. Hazardous Waste</b>									
A. Storage	4.074	4.487	4.487	4.512	4.512	4.512	4.512	4.512	4.512
B. Treatment (roll up by project)	8.499	15.206	10.113	10.121	9.18	8.883	8.575	8.259	9.121
C. Disposal (roll up by project)	9.185	9.223	9.284	9.353	9.353	9.353	9.353	9.353	9.353
D. Post-Project Completion Surveillance and Maintenance									
<b>VI. Sanitary Waste</b>									
A. Storage									
B. Treatment (roll up by project)									
C. Disposal (roll up by project)									
D. Post-Project Completion Surveillance and Maintenance									

Albuquerque Operations Office

**\*The attached guidance and definitions from the Office of Nuclear Material and Facility Stabilization should A22be referenced.**

Albuquerque Operations Office

**\*Dollar roll ups will be completed by HQs. Operations Office input should focus on needs from these program areas to facilitate meeting the vision laid out in the Ten Year Plan.**

# **Attachment III**

Albuquerque Operations Office

Attachment III												
Quantity Data												
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006 Total	2007 to Complete
<b>I. High Level Waste</b>												
A. Storage (prior to treatment)												
B. New waste												
C. Treatment (roll up by project)												
D. Long-term storage (roll up by project)												
<b>II. Transuranic Waste</b>												
A. Storage (prior to treatment)	8139.5	12824	14964	15858	18487	15625	15291	14732	11309	7275	N/A	N/A
B. New waste	410.45	414.45	463.45	462.45	462.45	462.45	462.45	462.45	462.45	454.45	4517.5	on-going
C. Treatment/Roadready not requiring treatment (roll up by project)	2500.3	5400.3	5450.3	5450.3	5450.3	5450.3	5450.3	5450.3	3659.3	966.25	45227.95	on-going
D. Disposal (WIPP) (roll up by project)	0.25	0.25	2500.3	5000.3	5000.3	5000.3	5000.3	5000.3	5000.3	5000.3	37502.9	on-going
<b>III. Mixed Low Level Waste</b>												
A. Storage	593	515	463	362	294	255	220	189	130	99	N/A	N/A
B. New waste	2558.7	3547.8	3243	2996.6	2992.2	2992.2	2992.2	2992.2	2992.2	1040.4	28347.5	on-going
C. Treatment (roll up by project)	195	152.8	148	130.6	124.2	124.2	124.2	124.2	124.2	114.4	1388.8	on-going
D. Disposal	195	152.8	176	130.6	131.2	127.2	124.2	124.2	124.2	114.4	29736.3	on-going
<b>IV. Low Level Waste</b>												
A. Storage	427.3	469.3	329.5	212.5	138	69	0	0	0	0	N/A	N/A
B. New waste	340725.9	11022	10514.5	10121.1	10109.9	10109.9	10105.9	9555.9	1765.7	419540.7	on-going	
C. Treatment (roll up by project)	23088.1	22946.2	22923.7	22916.1	22916.1	22916.1	22916.1	22916.1	22916.1	22859.9	229325.7	on-going
D. Disposal	6310.5	6375.8	6330.5	6291.6	6274.9	6274.9	6236.9	6205.9	6205.9	6149.7	62656.6	on-going
<b>V. Hazardous Waste</b>												
A. Storage												
B. New waste	6784.8	12,384.1	4,315.0	4,129.8	4,116.2	4,116.2	4,116.2	4,116.2	4,116.2	2,873.0	51,047.7	on-going
C. Treatment (roll up by project)	175530.7	175415.8	175391.2	175393.4	175380	175379.8	175379.8	175379.8	175379.8	175321.6	1753951.9	on-going
D. Disposal (roll up by project)	2545.1	2384.2	2359.6	2361.8	2348.2	2348.2	2348.2	2348.2	2348.2	2280	23681.7	on-going

**Note:** For the Environmental Restoration categories of this attachment (IX, X), please note the following: For the assessments category provide the total number of sites with the assessment phase completed by the end of the fiscal year. An assessment is complete when the characterization documentation is complete and a final response or no action decision is recommended. A release site or facility is complete when physical remediation has been finished (or no further action has been proposed) and documentation has been submitted. If a release site is proposed for no action, those release sites and facilities are considered both completed assessments and completed activities. Ground water pump and treat projects should be considered when the treatment facility is operating.

<b>Attachment III -Continued</b>										
										Quantity Data
										1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 1997-2006 Total 2007 to Complete
X.	Nuclear Materials(a)									
	A. Pre-Stabilization Storage									
	B. Stabilization (projects next level down)									
	C. Storage for long-term									
XI.	Spent Nuclear Fuel(b)									
	A. Pre-Stabilization Storage									
	B. Stabilization (projects next level down)									
	C. Storage for long-term									
XII.	Facilities(c)									
	A. Pre-Deactivation Monitoring									
	B. Deactivation (projects next level down)									
	C. Long-term monitoring									
	a Units are kilograms									
	b Units are metric tons of heavy metal									
	c Number of buildings deactivated									

# **Environmental Restoration**

**Albuquerque Environmental Restoration Program**  
**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One  Project  X Level of Effort Activity

Project Name or Activity Description **Albuquerque Environmental Restoration Program**

Project Number: **ref. EM-40 WBS # 1.4  
(1.4.2 & 1.4.3)**

Type of Project or Activity **ER Program Support**

Managing or Funding Program (check one or more)  WM  X ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

*The Albuquerque Operations Office (AL) Environmental Restoration (ER) program includes all ER projects at Los Alamos National Laboratory (LANL), Sandia National Laboratories (SNL), Inhalation Toxicology Research Institute (ITRI), Pantex Plant (PTX), Kansas City Plant (KCP), and Pinellas Plant (PIN). The AL ER Program also includes the Uranium Mill Tailings Remedial Action (UMTRA) Surface Project and the South Valley Superfund Site (SVSFS).*

*This project covers the Albuquerque Operations Office (AL) program and technical support for all AL Laboratories and Plants Environmental Restoration projects. This project also covers the Agreement-In-Principle(AIP) between the Department of Energy (DOE) and each of the States of Texas, Florida (FY97 & FY98 Only) and Missouri. AIP's covers technical and financial support for independent monitoring and oversight of DOE facilities by the States, for community education, and for States' radiological emergency response planning. This project also covers financial support for Innovative Treatment Remediation Demonstration (ITRD) activities that consist of a consortium of DOE, EPA, private industry, and representatives to generate real-world cost and technical performance data on innovative treatment technologies in the hope of promoting and accelerating their use nationwide. Sandia National Laboratories acts as the technical coordinator for the ITRD program.*

*The objective of the AL ER Program is to insure that all remediation is complete by the year 2000, except for SNL & LANL.*

**Milestone/Schedule Information:**

<i>ITRI</i>	<i>Remediation Complete - Oct FY97</i>
<i>KCP</i>	<i>Remediation Complete - Sept FY00</i>
<i>UMTRA</i>	<i>Remediation Complete - Sept FY98</i>
<i>PTX</i>	<i>Remediation Complete - Sept FY01</i>
<i>SNL</i>	<i>Remediation Complete - Sept FY02</i>
<i>LANL</i>	<i>Remediation Complete - Sept FY06</i>
<i>AL/ER</i>	<i>Program Complete - Sept FY06</i>

**Costs:** See Table IVa for projected Funding Profile for FY97 thru FY06  
Program Funding is Through EM-40

*B/A is considered equal to B/O for all AL ER Project funding data.*

**Outputs/Metrics:**

*Completed Assessments & Remediations are shown on Table IVb for each individual AL ER Project.*

*In addition to the Completed Remediations shown on Table IVb, the AL ER Program has 1,367 PRSS completed in Prior Years and thru the 2nd quarter of FY96.*

**Discussion:**

*All AL Installations have HQ approved baselines in place, baseline validations are tentatively planned for early FY97.*

*The information presented here differs slightly from the BEMR II in that this document reflects a completion date of 9/30/06 vs 9/30/2010, in the BEMR.*

*The information presented here also differs from the BEMR II in that outyear funding targets have been held flat at FY98 Funding Levels for the out-years.*

*Headquarters program management responsibility for the Pinellas Plant ER project has been transferred from EM-40 to EM-70, effective October 1, 1996. The AL ER program will no longer be responsible for funding this project but will still maintain oversight role of ER activities. This is reflected in all AL ER Project funding and performance data. Pinellas Plant information can be found in the Pinellas Plant Close-out Attachment IV of this Ten Year Plan.*

**Key Assumptions:**

- AL assumes that the "flat-funding" approach permits AL to replan and redirect outyear funds as projects are completed.*
- AL assumes that no additional Potential Release Sites (PRSS) will be added to the scope of work between FY97 and FY06.*
- AL assumes that no new facilities will be added to the decommissioning scope of work between FY97 and FY06.*
- AL assumes that no requirement exists for Privatization or Mortgage Reduction Plans, ie; Attachment V is not required.*
- AL assumes that no Mission Support requirements exist at any AL installations since EM is not the landlord. This reflected in Attachment VI as General Support.*

*AL assumes that all Surveillance & Maintenance (S&M) costs will be transferred to the installation landlord after completion of Remedial Action which is scheduled for FY2006. For purposes of consistency, S&M costs are shown through FY2006.*

*AL assumes this funding profile reflects expected issues based on prior experience in the program.*

Project Name Type of Project	Albuquerque ER Environmental Assessment and Remediation					Project #					
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007-
<b>TABLE IV-A</b>											
Project Funding Table (Thousands of Dollars)											
Construction BA	0	0	0	0	0	0	0	0	0	0	Complete
Construction BO	0	0	0	0	0	0	0	0	0	0	0
Operations BA	1.938	4.15	4.026	4.095	4.095	2.5	2.5	2.5	2.5	2	30.304
Operations BO	1.938	4.15	4.026	4.095	4.095	2.5	2.5	2.5	2.5	2	30.304
Other BA	0	0	0	0	0	0	0	0	0	0	0
Other BO	0	0	0	0	0	0	0	0	0	0	0
Total BA	1.938	4.15	4.026	4.095	4.095	2.5	2.5	2.5	2.5	2	30.304
Total BO	1.938	4.15	4.026	4.095	4.095	2.5	2.5	2.5	2.5	2	30.304

**Attachment IV, Los Alamos National Laboratory Ten Year Plan**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One  Project \_\_\_\_\_ Level of Effort Activity

Project Name or Activity Description LANL Environmental Restoration Project      Project Number ref EM-40 WBS 1.4.2.6

Type of Project or Activity \_\_\_\_\_ (select one from the Attachment II categories)

Managing or Funding Program (check one or more)  WM  ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

The LANL Environmental Restoration Project is responsible for the cleanup activities of contaminated sites and facilities resulting from historic laboratory activities. LANL's past activities primarily consisted of nuclear weapon research and production and energy related research. The environmental restoration activities at LANL are conducted in compliance with a RCRA permit issued by the U.S. Environmental Protection Agency - Region 6.

LANL's 2117 Potential Release Sites (PRSSs) are located on the Pajarito Plateau in Northern New Mexico. These sites are on private property and Forest Service land as well as DOE property. LANL is adjacent to the San Ildefonso Pueblo, and in the upgradient watersheds from several other New Mexico pueblos. The Canyons draining from the Los Alamos area are of significant concern to the regulators, Pueblos, and other nearby property owners.

The objective of the LANL Environmental Restoration Project is to complete all remediation and decommissioning by the end of FY 2006. A critical assumption of the plan to be complete by FY 2006 is the acceptance by the New Mexico Environment Department (NMED) of a strategy to minimize the effort necessary to characterize the canyons. The preliminary work to support this strategy began in FY 96. Another important assumption is the ability of LANL to develop remediation plans for the larger Material Disposal Areas (MDAs) that addresses risks while minimizing time consuming treatment. Significant progress has been made in cost effective remediation techniques for the MDAs, however, there is only moderate confidence in NMED's willingness to accept innovative proposals.

**Milestone/Schedule Information**

Field Unit 1

Complete all RFI Reports

December 2003

File: ATT4.DOC  
Folder: LANL

7/31/96  
8:46 AM

**Attachment IV, Los Alamos National Laboratory Ten Year Plan**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One**  **Project**  **Level of Effort Activity**

**Project Name or Activity Description** LANL Environmental Restoration Project

**Project Number ref** EM-40 WBS 1.4.2.6

**Type of Project or Activity** \_\_\_\_\_ (select one from the Attachment II categories)

**Managing or Funding Program** (check one or more)  WM  ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

The LANL Environmental Restoration Project is responsible for the cleanup activities of contaminated sites and facilities resulting from historic laboratory activities. LANL's past activities primarily consisted of nuclear weapon research and production and energy related research. The environmental restoration activities at LANL are conducted in compliance with a RCRA permit issued by the U.S. Environmental Protection Agency - Region 6.

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The objective of the LANL Environmental Restoration Project is to complete all remediation and decommissioning by the end of FY 2006. A critical assumption of the plan to be complete by FY 2006 is the acceptance by the New Mexico Environment Department (NMED) of a strategy to minimize the effort necessary to characterize the canyons. The preliminary work to support this strategy began in FY 96. Another important assumption is the ability of LANL to develop remediation plans for the larger Material Disposal Areas (MDAs) that addresses risks while minimizing time consuming treatment. Significant progress has been made in cost effective remediation techniques for the MDAs, however, there is only moderate confidence in NMED's willingness to accept innovative proposals.

**Milestone/Schedule Information**

**Field Unit 1**

Complete all RFI Reports

December 2003

File: ATT4.DOC  
Folder: LANL

LANL assumes that efforts to work with the regulator to streamline the RCRA process is successful in reducing the duration of regulatory review and number of Notices of Deficiency.

LANL assumes that the "flat-funding" approach permits AL to replan and redirect outyear funds as projects are completed.

LANL assumes that no additional Potential Release Sites (PRSSs) will be added to the scope of work between FY97 and FY06.

LANL assumes that no new facilities will be added to the decommissioning scope of work between FY97 and FY06. Future decommissioning of facilities will be budgeted for by the Landlord.

LANL assumes that all Surveillance & Maintenance (S&M) costs will be transferred to the installation landlord after FY06. Landlord to assume S&M cost of approximately \$90M. For Purposes of consistency, S&M costs are included for FY2006.

TSD Costs are not broken out from remediation costs on the premis that costs cannot be validated until baselines are prepared for the TYP budget. Existing Mortgage Reduction strategies are incorporated in the current 10 Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling.

In order to meet the goal of completion of the ER program by 2005, LANL and DOE will need to negotiate provisions in the revised RCRA permit that reflect the streamlined approaches in the document of understanding and innovative concepts described in the EPA ANPRM for RCRA Subpart (S) in lieu of the current RCRA regulatory process. These negotiations are are being initiated. This funding profile reflects expected issues based on prior experience in the program.

LANL assumes that efforts to work with the regulator to streamline the RCRA process is successful in reducing the duration of regulatory review and number of Notices of Deficiency.

LANL assumes that the "flat-funding" approach permits AL to replan and redirect outyear funds as projects are completed.

LANL assumes that no additional Potential Release Sites (PRSSs) will be added to the scope of work between FY97 and FY06. Future decommissioning of LANL assumes that no new facilities will be added to the decommissioning scope of work between FY97 and FY06. Future decommissioning of facilities will be budgeted for by the Landlord.

LANL assumes that all Surveillance & Maintenance (S&M) costs will be transferred to the installation landlord after FY06. Landlord to assume S&M cost of approximately \$90M. For Purposes of consistency, S&M costs are included for FY2006.

TSD Costs are not broken out from remediation costs on the premise that costs cannot be validated until baselines are prepared for the TYP budget. Existing Mortgage Reduction strategies are incorporated in the current 10 Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling.

In order to meet the goal of completion of the ER program by 2005, LANL and DOE will need to negotiate provisions in the revised RCRA permit that reflect the streamlined approaches in the document of understanding and innovative concepts described in the EPA ANPRM for RCRA.

Subpart (S) in lieu of the current RCRA regulatory process. These negotiations are are being initiated.

This funding profile reflects expected issues based on prior experience in the program.

Project Name	Los Alamos National Laboratory						Project #						
Type of Project	Environmental Assessment and Remediation												
							TABLE IV-B						
							Project Quantity Table (cubic meters)						
							1997- 2007- Complete						
							2006						
							2005						
							2004						
							2003						
							2002						
							2001						
							1999						
							1998						
TRU New Waste							10						
MLLW New Waste							2353						
LLW New Waste							3796						
Haz New Waste							1434						
Sanitary New West							2307						
IX. Remedial Action (Release Sites)													
A. Completed Assessments	150	250	105	60	70	50	40						
B. Completed Activities	150	230	150	100	65	45	40						

**Attachment IV**  
**Supporting Data**

**Worksheet for Projects and Level of Effort Activities**

Check One  Project \_\_\_\_\_ Level of Effort Activity

Project Name or Activity Description Sandia National Laboratories

Project Number ref. EM-40 WBS 1.4.2.2 & 1.4.2.4

Type of Project or Activity IX \_\_\_\_\_ (select one from the Attachment II categories)

Managing or Funding Program (check one or more)  WM  ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

The Sandia National Laboratories ( SNL ) Environmental Restoration Project is responsible for cleanup activities at approximately 200 Solid Waste Management Units ( SWMUs ) and Potential Release Sites ( PRSSs ) located within the boundaries of Kirtland Air Force Base near Albuquerque, N.M. and approximately 20 SWMUs located at a facility in Livermore, California. Activities at SNL which contributed to the possible contamination of soil and groundwater at these facilities centered around the research, development, and testing of the non-nuclear components of nuclear weapons. Other activities include energy research and development, manufacturing process development and environmental testing. The environmental restoration activities at SNL are conducted in compliance with a RCRA/HSWA Permit. The majority of the waste generated during remediation of these Potential Release Sites will be disposed of onsite utilizing a Corrective Action Management Unit (CAMU).

Sandia National Laboratories has been designated as a Small Site under the Department's Small Site Strategy. The projected completion date under this funding scenario is FY 2002, although some optimistic assumptions are being made in terms of keeping manpower and infrastructure in place during the severe cutback in funding in FY97 and the ability to ramp up to full scale cleanup activity in FY98.

**Milestone/Schedule Information**

Submit 10 No Further Action Proposals	FY 97
Begin Temporary Unit operation	FY 97
Submit 29 No Further Action Proposals	FY 98
Begin Corrective Action Management Unit (CAMU) operation	FY 98
Submit 39 No Further Action Proposals	FY 99
Submit 12 No Further Action Proposals	FY 2000

Submit 2 No Further Action Proposals  
End CAMU operation  
Submit Final Permit Modification

FY 2001  
FY 2001  
FY 2001

**Costs:** See Table IVa for projected Funding Profile for FY97 thru FY06.  
Program Funding is through EM-40

**Outputs/Metrics:** See Table IVb for Completed Assessments & Remediations

In addition to the completed remediations shown on Table Ivb, the SNL ER Program has 111 PRSS completed in prior years through FY96, 2nd Quarter.

#### **Discussion**

The information presented is based upon the latest ADS submission for FY97. One negative aspect of the Project as defined in this scenario which needs to be emphasized is the severe shortfall in the FY 97 budget figure as compared to the baseline. Although DOE/AL is looking for ways to mitigate the problem, it is very likely that key personnel will be lost in that year. Much of the momentum which has been built up with the regulators and the public will also very probably be lost. The problem of attempting to ramp up again quickly to full funding in FY 98 will also have to be addressed and inefficiencies will occur.

#### **Assumptions**

The information presented is based upon the SNL baseline for completing in FY 2002 and has received stakeholder and regulator support.

The budget reflected in the Ten Year Plan assumes the offsite disposal of ER generated waste. Although the DOE is attempting to permit a Corrective Action Management Unit (CAMU) at SNL for disposal of ER generated waste, approval by the regulators is by no means a certainty, and recent discussions with them indicate a high level of uncertainty is associated with obtaining a permit for CAMU.

TSD Costs are not broken out from remediation costs on the premis that costs cannot be validated until baselines are prepared for the TYP budget. Existing Mortgage Reduction strategies are incorporated in the current Ten Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling.

This funding profile reflects expected issues based on prior experience in the program.

Project Name	Sandia National Laboratories								Project #		
Type of Project	Environmental Assessment and Remediation										
<b>TABLE IV-B</b>											
									Project Quantity Table (cubic meters)		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997- 2007- 2006 Complete
TRU New Waste	0	0	0	0	0	0	0	0	0	0	0
MLLV New Waste	87.7	0	0	0	0	0	0	0	0	0	87.7
LLW New Waste	453.4	0	0	0	0	0	0	0	0	0	453.4
Haz New Waste	2785.7	7897.9	36.4	0	0	0	0	0	0	0	10720
Sanitary New Waste	3904	0	0	0	0	0	0	0	0	0	3904
<b>IX. Remedial Action (Release Sites)</b>											
A. Completed Assessments	0	0	0	0	0	0	0	0	0	0	0
B. Completed Activities	10	29	39	12	2	0	0	0	0	0	92

Project Name Type of Project	Sandia National Laboratories	Environmental Assessment and Remediation					Project #						
<b>TABLE IV-B</b>													
Project Quantity Table (cubic meters)													
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007-	2006	Complete
TRU New Waste	0	0	0	0	0	0	0	0	0	0	0	0	0
MLLW New Waste	87.7	0	0	0	0	0	0	0	0	0	0	87.7	0
LLW New Waste	453.4	0	0	0	0	0	0	0	0	0	0	453.4	0
Haz New Waste	2785.7	7897.9	36.4	0	0	0	0	0	0	0	0	10720	0
Sanitary New Wast	3904	0	0	0	0	0	0	0	0	0	0	3904	0
<b>IX. Remedial Action (Release Sites)</b>													
A. Completed Assessments	0	0	0	0	0	0	0	0	0	0	0	0	0
B. Completed Activities	10	29	39	12	2	0	0	0	0	0	0	92	0

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One  Project \_\_\_\_\_ Level of Effort Activity

Project Name or Activity Description Pantex Plant Site Remediation Project Project Number ref. EM-40 WBS # 1.4.3.1

Type of Project or Activity  IX \_\_\_\_\_ (select one from the Attachment II categories)

Managing or Funding Program (check one or more)  WM  ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

The Pantex Plant Environmental Restoration Project is responsible for the cleanup activities for contamination of soils and groundwater resulting from the production and testing of explosives components for nuclear weapons. The environmental restoration activities at Pantex are conducted in compliance with a RCRA permit issued by the Texas Natural Resource Conservation Commission (TNRCC). In addition, the Pantex Plant was placed on the National Priorities List in May 1994 by the US EPA. The DOE is currently negotiating a tri-party Federal Facility Agreement with the EPA and TNRCC with the expectation of the issuance of the final ROD in FY 2000.

The Pantex Plant's 144 solid waste management units (SWMUs) are grouped into 15 operable units for investigation and clean-up activities. RCRA Facility Investigations have been initiated or completed for all operable units, and Draft Final RFI Reports have been submitted to the TNRCC for 14 out of 15 operable units. Unit PX-15, the Hypalon Pond, was closed in 1995. EM-40 manages wastes (and plans/budgets for the eventual disposition of wastes) generated by the environmental restoration project at Pantex.

The objective of the Pantex ER project is to have all sites remediated or in remediation by the end of year 2000. Treatability projects, such as the groundwater treatment system, are designed to reduce contamination to meet Texas Risk Reduction Standards Guidance for soils and groundwater. The application of Risk Reduction Standards and treatability projects should lead to No Further Action (NFA) designation on the majority of release sites at Pantex. The groundwater remediation operations, along with monitoring programs and regulatory/administrative support for CERCLA closure are the only anticipated actions to continue past the year 2000. It is assumed that all Surveillance and Maintenance (S&M) costs will be transferred to the installation landlord after FY 2006. It is assumed that the cost of program staff for EM activities (estimated at \$1.3 million per year) will be transferred to the installation landlord after FY 2002. Program activities assume the issuance of the ROD under CERCLA in FY2000. Release Sites are considered complete with the submission of NFA request to the TNRCC.

The funding for the Pantex ER Project does not include the D&D of the more than 700 structures (over 3 million square feet) currently in use at Pantex. It is assumed the installation landlord program will be responsible for D&D activities.

**Attachment IV**  
**Supporting Data**

**Worksheet for Projects and Level of Effort Activities**

Check One  Project       Level of Effort Activity

Project Name or Activity Description Pantex Plant Site Remediation Project

Project Number ref. EM-40 WBS # 1.4.3.1

Type of Project or Activity IX (select one from the Attachment II categories)

Managing or Funding Program (check one or more) WM  ER TD NM SO

**Project or Activity Definition/Work Scope Description**

The Pantex Plant Environmental Restoration Project is responsible for the cleanup activities for contamination of soils and groundwater resulting from the production and testing of explosives components for nuclear weapons. The environmental restoration activities at Pantex are conducted in compliance with a RCRA permit issued by the Texas Natural Resource Conservation Commission (TNRCC). In addition, the Pantex Plant was placed on the National Priorities List in May 1994 by the US EPA. The DOE is currently negotiating a tri-party Federal Facility Agreement with the EPA and TNRCC with the expectation of the issuance of the final ROD in FY 2000.

The Pantex Plant's 144 solid waste management units (SWMUs) are grouped into 15 operable units for investigation and clean-up activities. RCRA Facility Investigations have been initiated or completed for all operable units, and Draft Final RFI Reports have been submitted to the TNRCC for 14 out of 15 operable units. Unit PX-15, the Hypalon Pond, was closed in 1995. EM-40 manages wastes (and plans/budgets for the eventual disposition of wastes) generated by the environmental restoration project at Pantex.

The objective of the Pantex ER project is to have all sites remediated or in remediation by the end of year 2000. Treatability projects, such as the groundwater treatment system, are designed to reduce contamination to meet Texas Risk Reduction Standards Guidance for soils and groundwater. The application of Risk Reduction Standards and treatability projects should lead to No Further Action (NFA) designation on the majority of release sites at Pantex. The groundwater remediation operations, along with monitoring programs and regulatory/administrative support for CERCLA closure are the only anticipated actions to continue past the year 2000. It is assumed that all Surveillance and Maintenance (S&M) costs will be transferred to the installation landlord after FY2006. It is assumed that the cost of program staff for EM activities (estimated at \$1.3 million per year) will be transferred to the installation landlord after FY2002. Program activities assume the issuance of the ROD under CERCLA in FY2000. Release Sites are considered complete with the submission of NFA request to the TNRCC.

The funding for the Pantex ER Project does not include the D&D of the more than 700 structures (over 3 million square feet) currently in use at Pantex. It is assumed the installation landlord program will be responsible for D&D activities.

**Outputs/Metrics:**

**See Table IVb for Completed Assessments & Remediations**

**In addition to the completed remediations shown on Table Ivb, the Pantex ER Program has 208 PRSSs completed in the Prior Years (Through FY96, 2Qtr).**

**Discussion**

The data in this worksheet is based on the Management Action Process document dated March 29, 1996, current estimated project schedules or on the 1998 ER program budget request. Additional adjustments were made to reflect remediation completion by the year 2000. The data is reflected in the current approved baseline. All assumptions are listed in the project description above.

**Assumptions**

TSD Costs are not broken out from remediation costs on the premis that costs cannot be validated until baselines are prepared for the TYP budget. Existing Mortgage Reduction strategies are incorporated in the current 10 Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling.

S&M Costs will be transferred to the installation landlord after completion of remedial action which is scheduled for FY2001. For purposes of consistency, S&M costs are shown through FY2006.

**Outputs/Metrics:**

**See Table IVb for Completed Assessments & Remediations**

**In addition to the completed remediations shown on Table Ivb, the Pantex ER Program has 208 PRSs completed in the Prior Years (Through FY96, 2Qtr).**

**Discussion**

The data in this worksheet is based on the Management Action Process document dated March 29, 1996, current estimated project schedules or on the 1998 ER program budget request. Additional adjustments were made to reflect remediation completion by the year 2000. The data is reflected in the current approved baseline. All assumptions are listed in the project description above.

**Assumptions**

TSD Costs are not broken out from remediation costs on the premis that costs cannot be validated until baselines are prepared for the TYP budget. Existing Mortgage Reduction strategies are incorporated in the current 10 Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling.

S&M Costs will be transferred to the installation landlord after completion of remedial action which is scheduled for FY2001. For purposes of consistency, S&m costs are shown through FY2006.

Project Name Type of Project	PANTEX Environmental Assessment and Remediation	Project #										
		TABLE IV-B Project Quantity Table (cubic meters)										
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007-
TRU New Waste	0	0	0	0	0	0	0	0	0	0	0	0
MLLW New Waste	0	0	0	0	0	0	0	0	0	0	0	0
LLW New Waste	5150	5150	5150	5150	5150	5150	5150	5150	5150	5150	0	41200
Haz New Waste	0	0	0	0	0	0	0	0	0	0	0	0
Sanitary New Wast	0	0	0	0	0	0	0	0	0	0	0	0
<b>IX. Remedial Action (Release Sites)</b>												
A. Completed Assessments	31	0	0	0	0	0	0	0	0	0	0	31
B. Completed Activities	21	18	1	1	0	0	0	0	0	0	0	41

Outfall 001/Northeast Site Area	Submit CMIPP to EPA	May 1996
Plating Building	Confirmation Study	FY 1997
Groundwater Treatment	Submit IMWP to EPA	March 1996
TCE Still Area	Annual Report	FY 1996-2030
Maintenance Vehicle Repair Shop Sump	Submit CMIP	Fiscal Year 1997
95th Terrace Site	Complete Physical Clean-up	FY 1999
South Lagoon	Submit IMWP	FY 1997
Consolidated CMS Report	Complete Physical Clean-up	FY 1998
	Interim Meas. Report	FY 1999
	Submit RFIWP to EPA	May 1996
	Complete Physical Clean-up	FY 1997
	Received NFA	FY 1996
	Complete Assessment	July 1996

**DEFINITIONS:**

- CMIP-Corrective Measures Implementation Plan
- IMR-Interim Measures Report
- CMIPP-Corrective Measures Program Plan
- RFIWP-Remedial Field Investigation Work Plan
- IMWP-Interim Measures Work Plan

**Costs:** See Table IVa for projected Funding Profile for FY97 thru FY06

Funding is through EM-40

All Surveillance and Maintenance (S&M) costs will be transferred to the installation landlord after FY2006. (S&M costs are included where appropriate during the 10 Year planning window and consist of monitoring, sample collection, and analysis costs). However, we expect to transfer S&M management to the landlord in FY2001.

**Outputs/Metrics:** See Table IVb for Completed Assessments & Remediations

In addition to the remediations to be completed as shown on Table IVb, the KCP ER Program has 36 PRSSs completed in prior years through FY96.

**Discussion**

Outfall 001/Northeast Site Area	Submit CMIPP to EPA Confirmation Study	May 1996 FY 1997
Plating Building Groundwater Treatment TCE Still Area	Submit IMWP to EPA Annual Report Submit CMIP Complete Physical Clean-up Submit IMWP	March 1996 FY 1996-2030 Fiscal Year 1997
Maintenance Vehicle Repair Shop Sump	Complete Physical Clean-up Complete Physical Clean-up Interim Meas. Report	FY 1999
95th Terrace Site	Submit RFIWP to EPA	FY 1997
South Lagoon	Complete Physical Clean-up Received NFA	FY 1998 FY 1996
Consolidated CMS Report	Complete Assessment	July 1996

**DEFINITIONS:**

- CMIP-Corrective Measures Implementation Plan
- IMR-Interim Measures Report
- CMIPP-Corrective Measures Program Plan
- RFIWP-Remedial Field Investigation Work Plan
- IMWP-Interim Measures Work Plan

**Costs: See Table IVa for projected Funding Profile for FY97 thru FY06**

Funding is through EM-40

All Surveillance and Maintenance (S&M) costs will be transferred to the installation landlord after FY2006. (S&M costs are included where appropriate during the 10 Year planning window and consist of monitoring, sample collection, and analysis costs). However, we expect to transfer S&M management to the landlord in FY2001.

**Outputs/Metrics: See Table IVb for Completed Assessments & Remediations**

In addition to the remediations to be completed as shown on Table IVb, the KCP ER Program has 36 PRSS completed in prior years through FY96.

**Discussion**



Project Name Type of Project	Kansas City	Environmental Assessment and Remediation				Project #		
<b>TABLE IV-A</b>								
Project Funding Table (Thousands of Dollars)								
							1997-	2007-
							2006	2006
1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Construction BA</b>	0	0	0	0	0	0	0	0
<b>Construction BO</b>	0	0	0	0	0	0	0	0
<b>Operations BA</b>	3.49991	6.01	6.332	2.091	1.14	1.14	1.14	1.14
<b>Operations BO</b>	3.49991	6.01	6.332	2.091	1.14	1.14	1.14	1.14
<b>Other BA</b>	0	0	0	0	0	0	0	0
<b>Other BO</b>	0	0	0	0	0	0	0	0
<b>Total BA</b>	3.49991	6.01	6.332	2.091	1.14	1.14	1.14	1.14
<b>Total BO</b>	3.49991	6.01	6.332	2.091	1.14	1.14	1.14	1.14

Project Name	Kansas City	Project #					
Type of Project	Environmental Assessment and Remediation						
<b>TABLE IV-B</b>							
	Project Quantity Table (cubic meters)						
	1997	1998	1999				
	2000	2001	2002				
	2003	2004	2005				
	2006	2007	2006 Complete				
TRU New Waste	0	0	0	0	0	0	0
MLLW New Waste	0	0	0	0	0	0	0
LLW New Waste	0	0	0	0	0	0	0
Haz New Waste	0	0	0	0	0	0	0
Sanitary New Wast	0	0	0	0	0	0	0
<b>IX. Remedial Action (Release Sites)</b>							
A. Completed Assessments	1	0	0	0	0	0	1
B. Completed Activities	3	0	3	0	0	0	6

## **Discussion**

All waste will be disposed of off site in FY96 and are not included here as they were in BEMR II. The data contained in this worksheet is accurate given the current assumptions and understanding of monitoring costs and expectations. The worksheet reflects a high degree of confidence that no groundwater remediation will be required by the regulators and that no significant further characterization of nitrates in groundwater will be required by the regulator.

## **Assumptions**

TSD Costs are not broken out from remediation costs on the premise that costs cannot be validated until baselines are prepared for the TYP budget. Existing Mortgage Reduction strategies are incorporated in the current 10 Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling.

S&M costs will be transferred to the installation landlord after completion of remedial action which is scheduled for FY96. For purposes of consistency, S&M costs are shown through 2006.

## **Discussion**

All waste will be disposed of off site in FY96 and are not included here as they were in BEMR II. The data contained in this worksheet is accurate given the current assumptions and understanding of monitoring costs and expectations. The worksheet reflects a high degree of confidence that no groundwater remediation will be required by the regulators and that no significant further characterization of nitrates in groundwater will be required by the regulator.

## **Assumptions**

TSD Costs are not broken out from remediation costs on the premise that costs cannot be validated until baselines are prepared for the TYP budget. Existing Mortgage Reduction strategies are incorporated in the current 10 Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling.

S&M costs will be transferred to the installation landlord after completion of remedial action which is scheduled for FY96. For purposes of consistency, S&M costs are shown through 2006.

Project Name Type of Project	Inhalation Toxicology Research Institute Environmental Assessment and Remediation						Project #
	1997	1998	1999	2000	2001	2002	
<b>TABLE IV-A</b> <b>Project Funding Table</b> (Thousands of Dollars)							
Construction BA	0	0	0	0	0	0	1997-
Construction BO	0	0	0	0	0	0	2006 Complete
Operations BA	0.325	0.194	0.08	0.08	0.08	0.08	2007-
Operations BO	0.325	0.194	0.08	0.08	0.08	0.08	2006
Other BA	0	0	0	0	0	0	0
Other BO	0	0	0	0	0	0	0
Total BA	0.325	0.194	0.08	0.08	0.08	0.08	0.08
Total BO	0.325	0.194	0.08	0.08	0.08	0.08	0.08



**Attachment IV**  
**Supporting Data**

**Worksheet for Projects and Level of Effort Activities**

Check One  Project  Level of Effort Activity

Project Name or Activity Description UMTRA - Surface Remedial Action Project \_\_\_\_\_ Project Number ref EM-40 WBS 1.4.4.

Type of Project or Activity Remediation \_\_\_\_\_ (select one from the Attachment II categories)

Managing or Funding Program (check one or more)  WM  ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

The UMTRA-Surface Project stabilizes and controls uranium mill tailings from 24 inactive processing sites and associated vicinity properties where tailings were used in the foundations of inhabited or commercial buildings or where tailings blew into open land surrounding the mill sites. The sand-like tailings are a result of uranium production from the early 1950s until the early 1970s. The UMTRA-Surface Project disposes of the tailings in a safe and environmentally sound manner. Congressional authorization for surface tailings remediation expires in September 1996; however, legislation was presented to Congress to extend the date to September 1998. The Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978 provides for the States to fund 10 percent of the remedial action costs at their sites, while the Department of Energy (DOE) Office of Environmental Management funds the remaining 90 percent.

Tailings remediation of each site includes a Remedial Action Plan (RAP) approved by the Nuclear Regulatory Commission (NRC) with the participation of the affected State/Tribe, an Environmental Assessment or Environmental Impact Statement, design/engineering, construction, prelicensing custodial care (PLCC) and licensing by the NRC. The hazards which these projects are designed to remediate include: (1) radon gas (Ra 222), (2) gamma radiation decay products (Pb 214 and Bi 214), (3) asbestos and other hazardous and mixed organic wastes at all mill sites, and (4) Resource Conservation and Recovery Act (RCRA) listed constituents in ground water plus molybdenum, radium, uranium, selenium and nitrates.

The UMTRA-Surface project has sites in 10 states there are also 2 affected Indian tribes. The sites are: Ambrosia Lake and Shiprock, New Mexico; Belfield and Bowman, North Dakota; Cannonsburg, Pennsylvania; Edgemont, South Dakota; Falls City, Texas, Green River, Salt Lake City and Mexican Hat, Utah; Tuba City and Monument Valley, Arizona; Lowman, Idaho; Lakeview, Oregon; Durango, Grand Junction, Gunnison, Maybell, Naturita, Rifle, and Slick Rock, Colorado; Riverton and Spook, Wyoming. The UMTRA project will complete in Fiscal year 1998 except for the Grand Junction disposal cell , Cheney. If Long Term Radon Management Program is approved by Congress, the Cheney cell will be left open for a period of time to accept Grand Junction vicinity properties. Ground water contamination will be brought into compliance by the Grand Junction Projects Office under the UMTRA Ground Water Compliance Project. After NRC licenses are granted, sites are transferred to the Long Term

**Milestone/Schedule Information**

<b>Site</b>	<b>Milestone Description</b>	<b>Milestone Type</b>	<b>Working Date as of 27-May-96</b>
Ambrosia Lake	Transfer to GJPO for LTS Program	OTH	10/1/98
	ERD Transmit Final Completion Report to NRC	OTH	9/11/96
	ERD Transmit Final LTSP to NRC	OTH	3/17/97
Belfield/Bowman	Publish EA/FONSI	OTH	5/28/96
	Delist Belfield and Bowman from UMTRCA	OTH	12/30/96
Durango	Transfer to GJPO for LTS Program	OTH	12/4/96
Falls City	Transfer to GJPO for LTS Program	OTH	10/1/97
	ERD Transmit Final LTSP to NRC	OTH	11/6/96
Grand Junction	Complete VP Remedial Action	OTH	2/28/98
	ERD Transmit Final Completion Report to NRC	OTH	5/3/99
	ERD Transmit Final LTSP to NRC	OTH	5/27/99
	Transfer to GJPO for LTS Program	OTH	10/1/99
	Transfer to GJPO for LTS Program	OTH	3/19/97
Gunnison	ERD Transmit Final Completion Report to NRC	OTH	2/4/97
	ERD Transmit Final LTSP to NRC	OTH	5/6/97
Maybell	Complete Site Remedial Action	PEG	12/23/96
	Transfer to GJPO for LTS Program	OTH	9/9/98
	ERD Transmit Final Completion Report to NRC	OTH	12/12/97
	ERD Transmit Final LTSP to NRC	OTH	5/29/97
Mexican Hat	Transfer to GJPO for LTS Program	OTH	10/1/97
	ERD Transmit Final Completion	OTH	2/18/97

<b>Site</b>	<b>Milestone Description</b>	<b>Milestone Type</b>	<b>Working Date as of</b>
	Report to NRC		27-May-96
	ERD Transmit Final LTSP to NRC	OTH	11/8/96
<b>Naturita</b>	Complete VP Remedial Action	OTH	10/30/96
	Complete Site Remedial Action	PEG	9/30/97
	Transfer to GJPO for LTS Program	OTH	9/30/98
	ERD Transmisit Final Completion	OTH	3/24/98
	Report to NRC		
	ERD Transmit Final LTSP to NRC	OTH	4/17/98
<b>Rifle</b>	Transfer to GJPO for LTS Program	OTH	10/1/98
	ERD Transmit Final Completion	OTH	10/1/97
	Report to NRC		
	ERD Transmit Final LTSP to NRC	OTH	11/24/97

Costs: See Table IVa for projected Funding Profile for FY97 thru FY06

Program Funding is through EM-40

Outputs/Metrics: See Table IVb for Completed Assessments & Remediations

#### Discussion

All cost and quantity data were included in the FY98 budget and are currently baselined. The milestone dates are from the FY98 budget with all current and approved Change Control Board Changes included from May. BEMR II cost and schedule data was based on the FY97 budget and will not match. Also, UMTRA surface and ground water costs are combined in BEMR II and they are not in the Ten Year plan.

TSD costs are not broken out from remediation costs on the premis that costs cannot be validated until baselines are prepared for the TYP budget.

Existing Mortgage Reduction strategies are incorporated in current 10 Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling.

Project Name Type of Project	UMTRA Environmental Assessment and Remediation							Project #							
<b>TABLE IV-A</b>															
Project Funding Table (Thousands of Dollars)															
		1997	1998	1999	2000	2001	2002	2003	2004						
Construction BA	0	0	0	0	0	0	0	0	0						
Construction BO	0	0	0	0	0	0	0	0	0						
Operations BA	42.567	28.886	0	0	0	0	0	0	0						
Operations BO	42.567	28.886	0	0	0	0	0	0	0						
Other BA	0	0	0	0	0	0	0	0	0						
Other BO	0	0	0	0	0	0	0	0	0						
Total BA	42.567	28.886	0	0	0	0	0	0	0						
Total BO	42.567	28.886	0	0	0	0	0	0	0						

Project Name	UMTRA	Environmental Assessment and Remediation					Project #	
Type of Project								
<b>TABLE IV-B</b>								
Project Quantity Table (cubic meters)								
	1997	1998	1999	2000	2001	2002	2003	2004
								2005
								2006
								1997-2006 Complete
TRU New Waste	0	0	0	0	0	0	0	0
MLLW New Waste	0	0	0	0	0	0	0	0
LLW New Waste	330895	0	0	0	0	0	0	330895
Haz New Waste	0	0	0	0	0	0	0	0
Sanitary New Waste	0	0	0	0	0	0	0	0
IX. Remedial Action (Release Sites)								
A. Completed Assessments	0	0	0	0	0	0	0	0
B. Completed Activities	4	0	0	0	0	0	0	4

**South Valley Ten Year Plan Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One X Project \_\_\_\_\_ Level of Effort Activity

Project Name or Activity Description South Valley Remediation Project \_\_\_\_\_ Project Number ref EM-40 WBS 1.4.2.1

Type of Project or Activity Remedial Action (IX) (select one from the Attachment II categories)

Managing or Funding Program (check one or more) WM X\_ER TD NM SO

**Project or Activity Definition/Work Scope Description**

The DOE is a potentially responsible party (PRP) for two Operable Units at the South Valley Superfund site for alleged contamination from a facility owned by the Atomic Energy Commission from 1951 to 1967. A settlement agreement was reached between DOE, the USAF, and General Electric (GE) (the remaining PRPs) which defined cost distributions. The EPA issued a 106 Administrative Order against GE and they have subsequently been the lead PRP for characterization and remedial activities.

Two groundwater pump-and-treat systems (one shallow, one deep) have been built and are currently operating. Characterization and remedial activities are considered 100% complete. Long-term surveillance and maintenance is expected to last until FY 2010.

The PRPs have proposed that one Operable Unit be closed out, but the EPA has not ruled on the proposal.

In FY 1994 a lawsuit was filed against all PRPs in the Superfund site (a total of seven) by a local landowner which has not been settled with the government to date.

**Milestone/Schedule Information**

Continual operation and maintenance of pump-and-treat systems	FY 1997
Continual monitoring of shallow and deep zone plumes	FY 1997

**Costs:** See Table IVa for projected Funding Profile for FY97 thru FY06

## **Outputs/Metrics**

No metrics identified. Long-term S&M (level of effort) constitutes of the remainder of the program and no metrics have been identified for this activity.

## **Discussion**

The South Valley cleanup activity is considered complete and the project is in the operation, maintenance, and monitoring phase. This plan reflects a high degree of confidence that no further contamination will be discovered and that no off-site migration has occurred that would likely increase the current scope of work for characterization and treatment. It is also assumed that legal activity will remain the same

## **Assumptions**

TSD Costs are not broken out from remediation costs on the premis that costs cannot be validated until baselines are prepared for the TYP budget. Existing Mortgage Reduction strategies are incorporated in the current 10 Year Plan. No opportunities have been identified which will require up front investments requiring additional program ceiling. It is assumed that a government buyout of liability will occur in FY2000 for the long-term maintenance and operations costs and release the government from liability. The listed costs do not include costs for new contaminant discovery or the remedial system's failure to operate correctly, both of which are unlikely.

Project Name Type of Project	South Valley Superfund Site Environmental Assessment and Remediation						Project #	
	1997	1998	1999	2000	2001	2002		
<b>TABLE IV-A</b> <b>Project Funding Table</b> (Thousands of Dollars)								
Construction BA	0	0	0	0	0	0	0	0
Construction BO	0	0	0	0	0	0	0	0
Operations BA	0.576	0.717	0.717	7.162	0	0	0	9.172
Operations BO	0.576	0.717	0.717	7.162	0	0	0	9.172
Other BA	0	0	0	0	0	0	0	0
Other BO	0	0	0	0	0	0	0	0
Total BA	0.576	0.717	0.717	7.162	0	0	0	9.172
Total BO	0.576	0.717	0.717	7.162	0	0	0	9.172

Project Name Type of Project	South Valley Superfund Site Environmental Assessment and Remediation										Project #	
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2006	1997-2007 Complete
<b>TABLE IV-A</b> <b>Project Funding Table</b> (Thousands of Dollars)												
Construction BA	0	0	0	0	0	0	0	0	0	0	0	0
Construction BO	0	0	0	0	0	0	0	0	0	0	0	0
Operations BA	0.576	0.717	0.717	7.162	0	0	0	0	0	0	9,172	0
Operations BO	0.576	0.717	0.717	7.162	0	0	0	0	0	0	9,172	0
Other BA	0	0	0	0	0	0	0	0	0	0	0	0
Other BO	0	0	0	0	0	0	0	0	0	0	0	0
Total BA	0.576	0.717	0.717	7.162	0	0	0	0	0	0	0	9,172
Total BO	0.576	0.717	0.717	7.162	0	0	0	0	0	0	0	9,172

# Waste Management

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One        Project       X       Level of Effort Activity

Project Name or Activity Description LOS ALAMOS NATIONAL LABORATORY

Project Number \_\_\_\_\_

Type of Project or Activity WASTE MANAGEMENT (select one from the Attachment II categories)

Managing or Funding Program (check one or more) X WM        ER        TD        NM        SO

**Project or Activity Definition/Work Scope Description**

The laboratory is an operating research and development facility primarily supporting Defense missions, thus it is certain that significant amounts of waste will be generated. LANL has on-going treatment, storage and disposal support for the Office of Defense Programs mission as well as the remediation activities occurring at the site. Waste Management is responsible for Transuranic (TRU), Low-Level (LLW), Mixed Low-Level (MLLW) and Hazardous Waste. TRU waste is being stored onsite pending shipment to the Waste Isolation Pilot Project (WIPP) for disposal. Conventional planning would not allow completion of TRU waste certification and shipment to WIPP until 2025. LANL is developing a ten year plan that will allow the workoff of historical TRU within the 10 year time frame while saving the taxpayer up to 76 million dollars. Further assumptions are that the WIPP site will be operational and ready to receive waste April 1998 allowing for disposal of historical and newly generated TRU waste. Treatment and packaging will be driven by the WIPP Waste Acceptance Criteria and the Site Treatment Plan. Future plans are for all Albuquerque Operations TRU waste to be consolidated at LANL for packaging and disposal at the WIPP site. MLLW is managed using offsite treatment and disposal capabilities. Historical MLLW is scheduled to be treated and disposed within a five year window. If necessary, the laboratory will treat any hazardous waste that cannot be treated commercially, but currently ships almost all hazardous waste offsite for commercial treatment and disposal. Solid LLW generated onsite is collected and disposed onsite at LANL. Liquid LLW is treated and packaged onsite at the Radioactive Liquid Waste Treatment Facility for onsite disposal. Offsite disposal options are being explored to provide disposal capacity for large volume generators. Program activities are in compliance with federal, state and local regulatory requirements.

Waste Management program operations will continue beyond FY2006 to handle all newly generated waste; however, the generators will begin to pay for all newly generated waste no later than FY2000.

**Milestone/Schedule Information**

Not applicable to Level of Effort Activities  
LANLWMA

**Attachment IV (Continued)**

Project Name or Activity Description	<u>LOS ALAMOS NATIONAL LABORATORY</u>	Project Number
Type of Project or Activity	<u>WASTE MANAGEMENT</u> (select one from the Attachment II categories)	
Costs		
SEE TABLE IV-A		
Indicate HQ Program Funding Source		
Defense Programs		
Outputs/Metrics		
SEE TABLE IV-B		

**Discussion**

Cost associated with waste disposal costs for cleanup activities are included within the scope of the Environmental Restoration program.

Data is based on BEMR II, ADS information and limited site input. The differences that exist between BEMR II and this information are due to the assumption for a longer range planning window used in BEMR II.

Construction at Los Alamos Laboratory is driven by state and EPA changing regulatory requirements. Proposed construction projects are: the upgrade to the Hazardous Waste Storage Fire Suppression, upgrade to the Hazardous Waste Storage Facility, design and installation of a Liquid Waste Monitoring System to segregate, characterize and monitor LLW and TRU waste, seismic upgrade, modification to an existing building at Area G to be used as a LLW volume reduction facility and upgrades/modification to the existing Radioactive Liquid Waste Treatment Facility or construction of a new facility.

**Project Name**      LOS ALAMOS NATIONAL LABORATORY  
**Type of Project**      Waste Management

**Project #**

**TABLE IV-B**  
**Project Quantity Table**  
 (cubic meters)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006	2007-Complete
<b>TRU Storage</b>	<b>8134</b>	<b>12824</b>	<b>14964</b>	<b>15858</b>	<b>18487</b>	<b>15625</b>	<b>15291</b>	<b>14732</b>	<b>11309</b>	<b>7275</b>	<b>N/A</b>	<b>N/A</b>
<b>TRU New Waste</b>	<b>400</b>	<b>400</b>	<b>450</b>	<b>4400</b>	<b>on going</b>							
<b>TRU Treatment</b>	<b>2500</b>	<b>5400</b>	<b>5450</b>	<b>5450</b>	<b>5450</b>	<b>5450</b>	<b>5450</b>	<b>5450</b>	<b>3659</b>	<b>966</b>	<b>45225</b>	<b>on going</b>
<b>TRU Disposal</b>	<b>0</b>	<b>0</b>	<b>2500</b>	<b>5000</b>	<b>37500</b>	<b>on going</b>						
<b>MLLW Storage</b>	<b>480</b>	<b>448</b>	<b>396</b>	<b>323</b>	<b>257</b>	<b>225</b>	<b>193</b>	<b>162</b>	<b>130</b>	<b>99</b>	<b>N/A</b>	<b>N/A</b>
<b>MLLW New Waste</b>	<b>69</b>	<b>690</b>	<b>on going</b>									
<b>MLLW Treatment</b>	<b>101</b>	<b>122</b>	<b>121</b>	<b>101</b>	<b>1051</b>	<b>on going</b>						
<b>MLLW Disposal</b>	<b>101</b>	<b>122</b>	<b>121</b>	<b>101</b>	<b>1051</b>	<b>on going</b>						
<b>LLW Storage</b>												
<b>LLW New Waste</b>												
<b>LLW Treatment</b>	<b>22710</b>	<b>227100</b>	<b>on going</b>									
<b>LLW Disposal</b>	<b>6000</b>	<b>60000</b>	<b>on going</b>									
<b>Haz Storage</b>												
<b>Haz New Waste</b>	<b>1200</b>	<b>12000</b>	<b>on going</b>									
<b>Haz Treatment</b>	<b>1200</b>	<b>12000</b>	<b>on going</b>									
<b>Haz Disposal</b>	<b>1200</b>	<b>12000</b>	<b>on going</b>									

**Project Name** LOS ALAMOS NATIONAL LABORATORY  
**Type of Project** Waste Management

Project #

**TABLE IV-A**  
**Project Funding Table**  
(Thousands of Dollars)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997- 2006	2007- 2006	Project Status
Construction BA	0	4000	4000	4000	3059	2762	2454	2138	3000	3000	28413	on-going	
Construction BO	0	4000	4000	4000	3059	2762	2454	2138	3000	3000	28413	on-going	
Operations BA	48690	58009	59708	58318	55631	55928	56236	56552	55518	56355	560945	on-going	
Operations BO	48690	58009	59708	58318	55631	55928	56236	56552	55518	56355	560945	on-going	
Other BA	4943	9431	7732	9122	12750	12750	12750	12750	12922	12085	107235	on-going	
Other BO	4943	9431	7732	9122	12750	12750	12750	12750	12922	12085	107235	on-going	
Total BA	53633	71440	71440	71440	71440	71440	71440	71440	71440	71440	696593	on-going	
Total BO	53633	71440	71440	71440	71440	71440	71440	71440	71440	71440	696593	on-going	

**Attachment IV (Continued)**

**Project Name or Activity Description** SANDIA NATIONAL LABORATORIES

**Project Number** \_\_\_\_\_

**Type of Project or Activity** WASTE MANAGEMENT

**Indicate HQ Program Funding Source**

**Defense Programs**

**Outputs/Metrics**

**SEE TABLE IV-B**

**Discussion**

**Cost associated with cleanup activities are included within the scope of the Environmental Restoration program.**

**Data is based on BEMR II, ADS information and site input. The differences that exist between BEMR II and this information are due to the assumption for a longer range planning window used in BEMR II.**

**Attachment IV (Continued)**

Project Name or Activity Description SANDIA NATIONAL LABORATORIES

Project Number \_\_\_\_\_

Type of Project or Activity WASTE MANAGEMENT

Indicate HQ Program Funding Source

Defense Programs

Outputs/Metrics

SEE TABLE IV-B

**Discussion**

Cost associated with cleanup activities are included within the scope of the Environmental Restoration program.

Data is based on BEMR II, ADS information and site input. The differences that exist between BEMR II and this information are due to the assumption for a longer range planning window used in BEMR II.

**Project Name** SANDIA NATIONAL LABORATORIES  
**Type of Project** Waste Management

Project #

**TABLE IV-B**  
**Project Quantity Table**  
(cubic meters)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006	2007-Complete
<b>TRU Storage</b>	5.45	0	0	0	0	0	0	0	0	0	N/A	N/A
<b>TRU New Waste</b>	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2	on going
<b>TRU Treatment</b>												
<b>TRU Disposal</b>												
<b>MLLW Storage</b>	39	38	38	10	10	3	0	0	0	0	N/A	N/A
<b>MLLW New Waste</b>	9	9	9	9	9	9	9	9	9	90	on going	
<b>MLLW Treatment</b>	9	9	9	9	9	9	9	9	9	90	on going	
<b>MLLW Disposal</b>	10	9	37	9	16	12	9	9	9	9	129	on going
<b>LLW Storage</b>	419.3	469.3	329.5	212.5	138	69	0	0	0	0	N/A	N/A
<b>LLW New Waste</b>	101	101	101	101	101	101	101	101	101	1010	on going	
<b>LLW Treatment</b>	40.6	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	321.4	on going
<b>LLW Disposal</b>	51	240.8	218	175.5	170	170	101	101	101	101	1429.3	on going
<b>Haz Storage</b>												
<b>Haz New Waste</b>	746	700	700	700	700	700	700	700	700	7046	on going	
<b>Haz Treatment</b>	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	766	on going	
<b>Haz Disposal</b>	746	700	700	700	700	700	700	700	700	7046	on going	

**Project Name** SANDIA NATIONAL LABORATORIES  
**Type of Project** Waste Management

Project #

**TABLE IV-B**  
**Project Quantity Table**  
(cubic meters)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006	2007-Complete
<b>TRU Storage</b>	5.45	0	0	0	0	0	0	0	0	0	N/A	N/A
<b>TRU New Waste</b>	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2	on going
<b>TRU Treatment</b>												
<b>TRU Disposal</b>												
<b>MLLW Storage</b>	39	38	38	10	10	3	0	0	0	0	N/A	N/A
<b>MLLW New Waste</b>	9	9	9	9	9	9	9	9	9	9	90	on going
<b>MLLW Treatment</b>	9	9	9	9	9	9	9	9	9	9	90	on going
<b>MLLW Disposal</b>	10	9	37	9	16	12	9	9	9	9	129	on going
<b>LLW Storage</b>	419.3	469.3	329.5	212.5	138	69	0	0	0	0	N/A	N/A
<b>LLW New Waste</b>	101	101	101	101	101	101	101	101	101	101	1010	on going
<b>LLW Treatment</b>	40.6	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	31.2	321.4	on going
<b>LLW Disposal</b>	51	240.8	218	175.5	170	170	101	101	101	101	1429.3	on going
<b>Haz Storage</b>												
<b>Haz New Waste</b>	746	700	700	700	700	700	700	700	700	700	7046	on going
<b>Haz Treatment</b>	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	766	on going
<b>Haz Disposal</b>	746	700	700	700	700	700	700	700	700	700	7046	on going

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One        Project       X       Level of Effort Activity

Project Name or Activity Description INHALATION TOXICOLOGY RESEARCH INSTITUTE Project Number                 

Type of Project or Activity WASTE MANAGEMENT (select one from the Attachment II categories)

Managing or Funding Program (check one or more) X WM        ER        TD        NM        SO

**Project or Activity Definition/Work Scope Description**

The main objective of the Waste Management program is to manage hazardous and radioactive waste generated from on-going Energy Research activities. Hazardous Waste is collected, stored temporarily onsite, and shipped offsite for commercial recycling/treatment/disposal. Transuranic Waste is shipped to Sandia National Laboratory, New Mexico for packaging pending disposal at the Waste Isolation Pilot Project Site. Low-level Waste (LLW) is compacted onsite, packaged and labeled for disposal at the Nevada Test Site. Mixed Low-Level Waste (MLLW) is shipped to an offsite commercial facility for treatment and disposal. Program activities are in compliance with federal, state and local regulatory requirements.

Waste Management program operations will continue beyond FY2006 to handle all newly generated waste; however, the generators will begin to pay for all newly generated waste no later than FY2000.

**Milestone/Schedule Information**

Not applicable to Level of Effort Activities

**Costs**

SEE TABLE IV-A

**Attachment IV (Continued)**

Project Name or Activity Description INHALATION TOXICOLOGY RESEARCH INSTITUTE Project Number \_\_\_\_\_

Type of Project or Activity WASTE MANAGEMENT (select one from the Attachment II categories)

Indicate HQ Program Funding Source

Energy Research

Outputs/Metrics

SEE TABLE IV-B

Discussion

ITRI is an Energy Research funded laboratory. Cost associated with cleanup activities are included within the scope of the Environmental Restoration program.

Data is based on BEMR II, ADS information and site input. The differences that exist between BEMR II and this information are due to the assumption for a longer range planning window used in BEMR II.

**Project Name** INHALATION TOXICOLOGY RESEARCH INSTITUTE  
**Type of Project** Waste Management

Project #

**TABLE IV-B**  
**Project Quantity Table**  
(cubic meters)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006	2007-2006
<b>TRU Storage</b>												
<b>TRU New Waste</b>	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5 on-going
<b>TRU Treatment</b>	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5 on-going
<b>TRU Disposal</b>	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5 on-going
<b>MLLW Storage</b>												
<b>MLLW New Waste</b>	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5 on-going
<b>MLLW Treatment</b>	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5 on-going
<b>MLLW Disposal</b>	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5 on-going
<b>LLW Storage</b>	8	0	0	0	0	0	0	0	0	0	N/A	N/A
<b>LLW New Waste</b>	100	100	100	100	100	100	100	100	100	100	1000	on-going
<b>LLW Treatment</b>	108	100	100	100	100	100	100	100	100	100	1008	on-going
<b>LLW Disposal</b>	30	30	30	30	30	30	30	30	30	30	300	on-going
<b>Haz Storage</b>												
<b>Haz New Waste</b>	9.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	93.2	on-going
<b>Haz Treatment</b>	9.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	93.2	on-going
<b>Haz Disposal</b>	9.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	93.2	on-going

Project Name      INHALATION TOXICOLOGY RESEARCH INSTITUTE  
 Type of Project    Waste Management

Project #

**TABLE IV-B**  
**Project Quantity Table**  
 (cubic meters)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006	2007-Complete
TRU Storage												
TRU New Waste	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5 on-going
TRU Treatment	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5 on-going
TRU Disposal	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.5 on-going
MLLW Storage												
MLLW New Waste	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5 on-going
MLLW Treatment	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5 on-going
MLLW Disposal	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5 on-going
LLW Storage	8	0	0	0	0	0	0	0	0	0	N/A	N/A
LLW New Waste	100	100	100	100	100	100	100	100	100	100	1000	1000 on-going
LLW Treatment	108	100	100	100	100	100	100	100	100	100	1008	on-going
LLW Disposal	30	30	30	30	30	30	30	30	30	30	300	300 on-going
Haz Storage												
Haz New Waste	9.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	93.2 on-going
Haz Treatment	9.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	93.2 on-going
Haz Disposal	9.5	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	93.2 on-going

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One        Project       X       Level of Effort Activity

Project Name or Activity Description PANTEX PLANT

Project Number \_\_\_\_\_

Type of Project or Activity WASTE MANAGEMENT (select one from the Attachment II categories)

Managing or Funding Program (check one or more) X WM        ER        TD        NM        SO

**Project or Activity Definition/Work Scope Description**

Pantex generates Hazardous, Non-hazardous, Mixed Low-Level Waste (MLLW) and Low-Level Waste (LLW) including: 1) evaluation, repair and retrofit of nuclear weapons in stockpile, 2) demilitarize and sanitize components from dismantled nuclear weapons, 3) providing interim storage for plutonium pits from dismantled nuclear weapons, and 4 ) development, fabrication, and testing of chemical explosives and explosive components for nuclear weapons and to support DOE initiatives. LLW is shipped to the Nevada Test Site for treatment and disposal; however, the Pantex Plant will continue to evaluate commercial offsite facilities for cost-effective treatment and disposal. Approved Mixed Low-Level Waste streams are treated and disposed at offsite commercial facilities. Those MLLW streams not approved for treatment and disposal at commercial offsite facilities are stored onsite in RCRA permitted facilities. Stored MLLW will be treated and disposed in accordance with the Pantex Site Treatment Plan and Agreed Order. Hazardous waste and non-hazardous waste are shipped for treatment and disposal at offsite commercial facilities. Program activities are in compliance with federal, state and local regulatory requirements.

Waste Management program operations will continue beyond FY2006 to handle all newly generated waste; however, the generators will begin to pay for all newly generated waste no later than FY2000.

**Milestone/Schedule Information**

**Not applicable to Level of Effort Activities**

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One  Project  Level of Effort Activity

Project Name or Activity Description **PANTEX PLANT**

Project Number \_\_\_\_\_

Type of Project or Activity **WASTE MANAGEMENT** (select one from the Attachment II categories)

Managing or Funding Program (check one or more)  WM  ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

Pantex generates Hazardous, Non-hazardous, Mixed Low-Level (MLLW) and Low-Level Waste (LLW) including: 1) evaluation, repair and retrofit of nuclear weapons in stockpile, 2) demilitarize and sanitize components from dismantled nuclear weapons, 3) providing interim storage for plutonium pits from dismantled nuclear weapons, and 4 ) development, fabrication, and testing of chemical explosives and explosive components for nuclear weapons and to support DOE initiatives. LLW is shipped to the Nevada Test Site for treatment and disposal; however, the Pantex Plant will continue to evaluate commercial offsite facilities for cost-effective treatment and disposal. Approved Mixed Low-Level Waste streams are treated and disposed at offsite commercial facilities. Those MLLW streams not approved for treatment and disposal at commercial offsite facilities are stored onsite in RCRA permitted facilities. Stored MLLW will be treated and disposed in accordance with the Pantex Site Treatment Plan and Agreed Order. Hazardous waste and non-hazardous waste are shipped for treatment and disposal at offsite commercial facilities. Program activities are in compliance with federal, state and local regulatory requirements.

Waste Management program operations will continue beyond FY2006 to handle all newly generated waste; however, the generators will begin to pay for all newly generated waste no later than FY2000.

**Milestone/Schedule Information**

Not applicable to Level of Effort Activities

Project Name	PANTEX PLANT Waste Management	Project #
<b>TABLE IV-A</b>		
		Project Funding Table (Thousands of Dollars)
		1997
		1998
		1999
		2000
		2001
		2002
		2003
		2004
		2005
		2006
		1997-
		2006
		2008
		Complete
Construction BA	0	5000
Construction BO	0	5000
Operations BA	8933	7000
Operations BO	8933	7000
Other BA	2861	4906
Other BO	2861	4906
Total BA	11794	16906
Total BO	11794	16906

Project Name Type of Project	PANTEX PLANT Waste Management							Project #				
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997- 2006	2007- Complete
TRU Storage												
TRU New Waste												
TRU Treatment												
TRU Disposal												
MLLW Storage	74	29	29	29	27	27	27	27	0	0	N/A	N/A
MLLW New Waste	39.5	21.3	17.5	18.1	13.7	13.7	13.7	13.7	13.7	3.9	168.8	on-going
MLLW Treatment	84.5	21.3	17.5	20.1	13.7	13.7	13.7	40.7	13.7	3.9	242.8	on-going
MLLW Disposal	84.5	21.3	17.5	20.1	13.7	13.7	13.7	40.7	13.7	3.9	242.8	on-going
LLW Storage												
LLW New Waste	229.5	105	82.5	86.1	74.9	74.9	74.9	74.9	74.9	18.7	896.3	on-going
LLW Treatment	229.5	105	82.5	86.1	74.9	74.9	74.9	74.9	74.9	18.7	896.3	on-going
LLW Disposal	229.5	105	82.5	86.1	74.9	74.9	74.9	74.9	74.9	18.7	896.3	on-going
Haz Storage												
Haz New Waste	244.6	129.9	105.3	107.5	93.9	93.9	93.9	93.9	93.9	35.7	1092.5	on-going
Haz Treatment	244.6	129.9	105.3	107.5	93.9	93.9	93.9	93.9	93.9	35.7	1092.5	on-going
Haz Disposal	244.6	129.9	105.3	107.5	93.9	93.9	93.9	93.9	93.9	35.7	1092.5	on-going

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One   Project   X Level of Effort Activity

Project Name or Activity Description KANSAS CITY PLANT

Project Number \_\_\_\_\_

Type of Project or Activity WASTE MANAGEMENT (select one from the Attachment II categories)

Managing or Funding Program (check one or more) X WM   ER   TD   NM   SO

**Project or Activity Definition/Work Scope Description**

The Waste Management program is primarily responsible for newly generated Hazardous Waste and the preparation for commercial offsite treatment and disposal of that waste. Onsite treatment of Hazardous Waste is limited to industrial wastewater pretreatment. There are also small quantities of Low-Level Waste generated which is shipped to the Nevada Test Site for disposal or shipped offsite for recycling. The Kansas City Plant performs no onsite waste disposal. As plant operations down-size, waste generation is expected to decrease. Program activities are in compliance with federal, state and local regulatory requirements.

Waste Management program operations will continue beyond FY2006 to handle all newly generated waste; however, the generators will begin to pay for all newly generated waste no later than FY2000.

**Milestone/Schedule Information**

Not applicable to Level of Effort Activities

**Costs**

**SEE TABLE IV-A**

**Attachment IV (Continued)**

Project Name or Activity Description KANSAS CITY PLANT Project Number \_\_\_\_\_  
Type of Project or Activity WASTE MANAGEMENT (select one from the Attachment II categories)

**Indicate HQ Program Funding Source**

**Defense Programs**

**Outputs/Metrics**

**SEE TABLE IV-B**

**Discussion**

Cost associated with cleanup activities are included within the scope of the Environmental Restoration program.

Data is based on BEMR II, ADS information and site input. The differences that exist between BEMR II and this information are due to the assumption for a longer range planning window used in BEMR II.

Construction at the Kansas City Plant is a RCRA driven project that will replace the overhead industrial waste piping system from the main manufacturing building and five other smaller buildings to the Industrial Waste Pretreatment Facility.

Project Name    KANSAS CITY PLANT  
 Type of Project    Waste Management

Project #

**TABLE IV-A**  
**Project Funding Table**  
 (Thousands of Dollars)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2006	2007-Complete
Construction BA	2390	100	0	0	0	0	0	0	0	0	0	2490
Construction BO	2390	100	0	0	0	0	0	0	0	0	0	2490
Operations BA	4522	4520	4520	4520	4520	4520	4520	4520	4520	4520	4520	45202 on-going
Operations BO	4522	4520	4520	4520	4520	4520	4520	4520	4520	4520	4520	45202 on-going
Other BA	1212	1260	1360	1360	1360	1360	1360	1360	1360	1360	1360	10249 on-going
Other BO	1212	1260	1360	1360	1360	1360	1360	1360	1360	1360	1360	10249 on-going
Total BA	8124	5880	5880	5880	5880	5880	5880	5880	5880	5880	5880	61044 on-going
Total BO	8124	5880	5880	5880	5880	5880	5880	5880	5880	5880	5880	61044 on-going

Project Name KANSAS CITY PLANT  
Type of Project Waste Management

Project #

TABLE IV-A  
Project Funding Table  
(Thousands of Dollars)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2007- Complete
Construction BA	2390	100	0	0	0	0	0	0	0	2490	0
Construction BO	2390	100	0	0	0	0	0	0	0	2490	0
Operations BA	4522	4520	4520	4520	4520	4520	4520	4520	4520	4520	45202 on-going
Operations BO	4522	4520	4520	4520	4520	4520	4520	4520	4520	4520	45202 on-going
Other BA	1212	1260	1360	1360	1360	1360	1360	1360	1360	1360	10249 on-going
Other BO	1212	1260	1360	1360	1360	1360	1360	1360	1360	1360	10249 on-going
Total BA	8124	5880	5880	5880	5880	5880	5880	5880	5880	5880	61044 on-going
Total BO	8124	5880	5880	5880	5880	5880	5880	5880	5880	5880	61044 on-going

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One        Project       X       Level of Effort Activity

Project Name or Activity Description ALBUQUERQUE POLLUTION PREVENTION PROGRAM Project Number                 

Type of Project or Activity POLLUTION PREVENTION (select one from the Attachment II categories)

Managing or Funding Program (check one or more)      WM            ER            TD            NM            X      SO

**Project or Activity Definition/Work Scope Description**

The Pollution Prevention (P2) Program required by RCRA and DOE Orders is established to reduce the risk to workers, the public, and the environment by minimizing the amount of waste and pollution that is generated. This is accomplished through implementation of process and material changes that reduce the source of pollution or divert it from a disposal/release pathway to recycling or reuse. The P2 Program reduces the cost of waste operations and provides an alternative strategy for regulatory compliance. The P2 Program provides leadership, employee training, technical support for identification and implementation of P2 opportunities, tracking and reporting of progress, and exchange of P2 technologies and tools with other sites.

The P2 Program will extend beyond FY2006, continuing to work with the waste generators to implement waste reduction programs/projects.

**Milestone/Schedule Information**

Not applicable to Level of Effort Activities

Costs

SEE TABLE IV-A

**Attachment IV (Continued)**

Project Name or Activity Description	<u>ALBUQUERQUE POLLUTION PREVENTION PROGRAM</u>	Project Number
Type of Project or Activity	<u>POLLUTION PREVENTION</u>	(select one from the Attachment II categories)
<b>Indicate HQ Program Funding Source</b>		
Defense Programs and Energy Research		
<b>Outputs/Metrics</b>		
None		
<b>Discussion</b>		

Project Name	ALBUQUERQUE POLLUTION PREVENTION PROGRAM										Project #
Type of Project	Pollution Prevention										
	TABLE IV-A Project Funding Table (Thousands of Dollars)										
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006 Complete
Construction BA											
Construction BO											
Operations BA	3764	3970	3970	3970	3970	3970	3970	3970	3970	3970	39494 on-going
Operations BO	3764	3970	3970	3970	3970	3970	3970	3970	3970	3970	39494 on-going
Other BA											
Other BO											
Total BA	3764	3970	3970	3970	3970	3970	3970	3970	3970	3970	39494 on-going
Total BO	3764	3970	3970	3970	3970	3970	3970	3970	3970	3970	39494 on-going

**GJPO**

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One X Project — Level of Effort**

**Project Name:** Monticello Projects  
**Project Number:** ALGJ-0002 (98 ADS)

**Type of Project:** Remedial Action

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

**Purpose/Problem Addressed:**

These CERCLA projects include remediation of a former uranium millsite, vicinity, and peripheral properties near Monticello, Utah, and assessment and remediation of surface- and ground-water contamination beneath and down gradient from the millsite.

**Facilities/Location:**

The Monticello Projects sites are located near the City of Monticello in San Juan County, Utah. The Monticello Mill Tailings Site is comprised of three operable units (OUS): the mill site (OU I), a 110-acre tract located along Montezuma Creek, south of the City of Monticello; 25 peripheral properties (OU II) located north and south of the millsite; and the surface (Montezuma Creek) and ground water (OU III) located beneath and extending beyond the millsite. The Monticello Vicinity Properties encompasses 415 vicinity properties in six sections located in and around the City of Monticello. An additional five vicinity properties that were identified as part of the site boundary program will be formally included into the MVP by the end of FY 96.

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One X Project      \_\_\_\_\_ Level of Effort**

**Project Name:** Monticello Projects

**Project Number:** ALGI-0002 (98 ADS)

**Type of Project:** Remedial Action

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

*Purpose/Problem Addressed:*

These CERCLA projects include remediation of a former uranium millsite, vicinity, and peripheral properties near Monticello, Utah, and assessment and remediation of surface- and ground-water contamination beneath and down gradient from the millsite.

*Facilities/Location:*

The Monticello Projects sites are located near the City of Monticello in San Juan County, Utah. The Monticello Mill Tailings Site is comprised of three operable units (OUS): the mill site (OU I), a 110-acre tract located along Montezuma Creek, south of the City of Monticello; 25 peripheral properties (OU II) located north and south of the millsite; and the surface (Montezuma Creek) and ground water (OU III) located beneath and extending beyond the millsite. The Monticello Vicinity Properties encompasses 415 vicinity properties in six sections located in and around the City of Monticello. An additional five vicinity properties that were identified as part of the site boundary program will be formally included into the MVP by the end of FY 96.

Removal of tailings from the peripheral and vicinity properties entails the use of conventional and environmentally sensitive construction techniques that employ hand excavation or vacuum removal of tailings to preserve native vegetation. Tailings removed from the peripheral properties will be temporarily stored on the millsite and then placed in the permanent repository.

The removal of tailings in the sediment along Montezuma Creek will entail the use of conventional and environmentally sensitive construction techniques that employ hand excavation or vacuum removal of tailings to preserve native vegetation. The remedy for the remediation of the surface and ground water contamination has not yet been selected. The draft Record of Decision for the selected remediation of the unit is currently planned for FY 2000; however, options to advance this are being evaluated.

An independent verification contractor will verify the removal of contaminants by performing document reviews and field measurements.

***Waste/Materials Generated:***

2.6 million cubic yards of radiologically contaminated tailings at the millsite, vicinity and peripheral properties at Monticello. The quantity of contamination associated with the Monticello Surface and Ground Water program has not been determined.

***Relation to Other Projects:*** None

***Relation to Other Sites:*** None

**Milestones/Schedule Information:**

OU I, Submit millsite restoration conceptual design to EPA/State .....	12/31/96
OU II, Design complete.....	1/3/97
OU III, Draft Final Interim Proposed Plan - Primary Document .....	4/10/97
OU III, Draft Final Interim Record of Decision for Sediment .....	5/31/97
OU III, Draft Final Remedial Investigation Report - Primary Document .....	6/19/97
OU III, Draft Final Feasibility Study Report - Primary Document .....	6/19/97
MVP OU B, Construction complete .....	7/1/97
MVP OU C, Construction complete .....	7/1/97
MVP OU G, Construction complete .....	9/30/97

Removal of tailings from the peripheral and vicinity properties entails the use of conventional and environmentally sensitive construction techniques that employ hand excavation or vacuum removal of tailings to preserve native vegetation. Tailings removed from the peripheral properties will be temporarily stored on the millsite and then placed in the permanent repository.

The removal of tailings in the sediment along Montezuma Creek will entail the use of conventional and environmentally sensitive construction techniques that employ hand excavation or vacuum removal of tailings to preserve native vegetation. The remedy for the remediation of the surface and ground water contamination has not yet been selected. The draft Record of Decision for the selected remediation of the unit is currently planned for FY 2000; however, options to advance this are being evaluated.

An independent verification contractor will verify the removal of contaminants by performing document reviews and field measurements.

*Waste/Materials Generated:*

2.6 million cubic yards of radiologically contaminated tailings at the millsite, vicinity and peripheral properties at Monticello. The quantity of contamination associated with the Monticello Surface and Ground Water program has not been determined.

*Relation to Other Projects:*      None

*Relation to Other Sites:*      None

**Milestones/Schedule Information:**

OU I, Submit millsite restoration conceptual design to EPA/State	12/31/96
OU II, Design complete	1/3/97
OU III, Draft Final Interim Proposed Plan - Primary Document	4/10/97
OU III, Draft Final Interim Record of Decision for Sediment	5/31/97
OU III, Draft Final Remedial Investigation Report - Primary Document	6/19/97
OU III, Draft Final Feasibility Study Report - Primary Document	6/19/97
MVP OU B, Construction complete	7/1/97
MVP OU C, Construction complete	7/1/97
MVP OU G, Construction complete	9/30/97

***BEMR II Differences:***

Projected costs in the BEMR II document were based on the FY97 budget formulation process. The information provided in the Ten-Year Plan are based on the FY98 budget formulation process. Budget constraints are reflected in the FY98 budget formulation numbers.

The savings from Landlord (see GJPO Program Support) have been redirected to the Monticello Projects for FYs 1998-2000.

Monticello

Project Name	Monticello Projects						Project #	ALGJ-0002 (98 ADS)
Type of Project	Remedial Action							
<b>TABLE IV-A</b>								
Project Funding Table (Thousands of Dollars)								
1997	1998	1999	2000	2001	2002	2003	2004	2005
Construction BA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction BO	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Operations BA	\$32,826	\$23,906	\$20,402	\$8,604	\$3,784	\$140		
Operations BO	\$32,826	\$23,906	\$20,402	\$8,604	\$3,784	\$140	\$0	\$0
Other BA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other BO	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total BA	\$32,826	\$23,906	\$20,402	\$8,604	\$3,784	\$140	\$0	\$0
Total BO	\$32,826	\$23,906	\$20,402	\$8,604	\$3,784	\$140	\$0	\$0

Project Name Type of Project	Monticello Projects Remedial Action							Project # ALGJ-0002 (98 ADS)						
TABLE IV-B														
Project Quantity Table (cubic meters)														
		1997	1998	1999	2000	2001	2002	2003						
TRU New Waste														
MLW New Waste														
LLW New Waste														
Haz New Waste														
Sanitary New Waste														
<b>IX. Remedial Action (Release Sites)</b>														
A. Completed Assessments	1	6	5	2	2	0	0	0						
B. Completed Activities								16						

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One    X   Project    —    Level of Effort**

**Project Name:**    Grand Junction Projects Office Remedial Action Project

**Type of Project:**    Decommissioning

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

***Purpose/Problem Addressed:***

Eliminate the potential hazards of long-term exposure to low-level radioactive contamination associated with past uranium ore processing activities at the Grand Junction facility. Contaminated soil and debris have been removed and disposed of at the UMTRA Cheney Disposal Cell. Natural dispersion, allowing eventual elimination of contaminants in the alluvial aquifer beneath the site, is monitored annually. Contaminated portions of the facility are being restored for unrestricted use by decontaminating or demolishing buildings and disposing of the resulting debris.

***Facilities/Location:***

The Grand Junction Projects Office site is located on the southwest side of the City of Grand Junction, Mesa County, in western Colorado. The facility occupies 56.4 acres of land along a bend of the Gunnison River. It is bounded on the west and south by the river and on the north and east by county, city, and private property.

***Key Assumptions:***

- All residual radioactive materials will be co-disposed with the UMTRA Program tailings at the Cheney Disposal Cell.

- PCB-contaminated tailings currently stored at the GJPO site will be disposed of at the Cheney Disposal Cell.

*Accomplishments to Date:*

- Excavated 418,500 tons of uranium mill tailings from the facility and disposed of them at the Cheney Disposal Cell.
- Reconstructed all disturbed areas including wetlands.
- Demolished 8 buildings
- Decontaminated 3 buildings for unrestricted use.
- Partially decontaminated 4 buildings for restricted use by radiologically trained personnel.

*FY 2006 End State:*

Decommissioning of the site will be completed and be available for free release. Continued use of the site for DOE activities will depend on mission assignments.

*Activities After 2006:*

Inspection of the site to ensure natural attenuation of the ground water contamination will be performed by the LTSM Program. All costs associated with this activity are included in the LTSM Program.

*Major Cost Drivers:*

Amount of contamination to be remediated and disposed and the availability of the Cheney Disposal Cell. The Cheney Disposal Cell is scheduled to stop accepting waste in February 1998. Contaminated debris from the one remaining building that is scheduled for remediation in FY 2000 could increase disposal costs by more than \$500K, if another disposal facility is used. GJPO is also planning on intensifying waste minimization efforts in response to the increased cost of disposal, if Cheney closes.

*Technologies/Approaches:*

The selected alternative of the ROD was to remove contaminated materials from the site and co-dispose with UMTRA Project tailings. Complete removal of contaminated material will eliminate both radiation contamination and will allow the natural dispersion and eventual elimination of contaminants in the alluvial aquifer beneath the site. While not a CERCLA site, direction was received from DOE-HQ mandating that GJPO and its contractors comply with relevant requirements of CERCLA and SARA for these activities.

#### **Waste/Materials Generated:**

To date, 418,500 tons (256,748 cubic yards) of uranium mill tailings and building debris have been excavated from the facility and disposed at the Cheney Disposal Cell. The quantity of additional material associated with the decontamination or demolition of the remaining contaminated buildings is estimated to be 15,609 tons (10,406 cubic yards).

#### **Relation to Other Projects:**

The contaminated materials from the GJPORAP program is currently authorized to be disposed in the UMTRA Program Cheney Disposal Cell. However, this disposal cell is currently scheduled to stop accepting waste in February 1998. Closure of this disposal cell would require the use of another site. A proposal is before Congress to extend the UMTRA program and leave the Cheney open for an additional 25 years. GJPO personnel are assisting the UMTRA Projects office to negotiate keeping the Cheney Disposal Cell open beyond FY 98.

*Relation to Other Sites:*      None

#### **Milestones/Schedule Information:**

Complete decontamination of Building 31A.....	10/31/96
Complete decontamination of Building 46 .....	6/15/96
Complete decontamination of Building 938 .....	3/31/97
Complete decontamination of Building 28 .....	9/30/97
Complete decontamination of Building 33 .....	9/30/97
Complete decontamination of Building 35 .....	9/30/97
Complete decontamination of Building 2 .....	3/30/99
Complete demolition of Building 7 .....	9/30/99
Ground Water model verification (IVC) .....	9/30/98
Complete Independent Verification Closeout Report .....	9/30/00
Complete decontamination of Building 20 .....	9/30/00
Project Closeout.....	9/30/00

Project Name	GJPO Remedial Action Project				Project #		ALGJ-0003 (98 ADS)	
Type of Project	Decommissioning							
TABLE IV-B Project Quantity Table (cubic meters)								
	1997	1998	1999	2000	2001	2002	2003	2004
TRU New Waste								
MLLW New Waste								
LLW New Waste								
Haz New Waste								
Sanitary New Waste								
<b>IX. Remedial Action (Release Sites)</b>								
A. Completed Assessments	5	2	0	1	0	0	0	0
B. Completed Activities								8

Project Name	GJPO Remedial Action Project					Project #	ALGJ-0003 (98 ADS)						
Type of Project	Decommissioning												
<b>TABLE IV-B</b>													
Project Quantity Table (cubic meters)													
	1997	1998	1999	2000	2001	2002	2003	2004					
TRU New Waste													
MLLW New Waste													
LLW New Waste													
Haz New Waste													
Sanitary New Waste													
<b>IX. Remedial Action (Release Sites)</b>													
A. Completed Assessments	5	2	0	1	0	0	0	0					
B. Completed Activities								8					

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One X Project — Level of Effort**

**Project Name:** UMTRA Ground Water Project

**Type of Project:** Remedial Action

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

***Purpose/Problem Addressed:***

Conduct Uranium Mill Tailings Radiation Control Act compliance activities at 24 inactive uranium processing sites to bring ground water contaminant levels into compliance with EPA standards.

***Facilities/Location:***

The 24 Title I sites are located in 10 States (Colorado, Arizona, New Mexico, Idaho, North Dakota, Oregon, Pennsylvania, Texas, Utah, and Wyoming) and on 4 Native American tribe/nation lands.

***Key Assumptions:***

- Ground water cooperative agreements will be in place in time for scheduled ground water compliance activities.
- The project schedule is presently being revised to incorporate recommendations from the Independent Technical Review, received in January 1996, and changes made in the FY98 ADS submittal. These changes will reduce administrative and characterization costs and will focus on near-term liability reduction activities.

*Accomplishments to Date:*

- Completed the transition of project management from the UMTRA Projects Office to the Grand Junction Project Office.
- Completed the draft Programmatic Environmental Impact Statement.
- Completed 19 site Baseline Risk Assessments.
- Drafted 10 Site Observational Work Plans.

*FY 2006 End State:*

Sites that have been determined to require no remediation (i.e., ground water contamination does not exceed maximum concentration limits or backgrounds, or sites where supplemental standards or alternate concentration limits have been applied) will be removed from the UMTRA Ground Water Program. Sites where passive ground water remediation has been determined to be the appropriate response will be transferred to the LTSM Program for long-term monitoring. (Funding to perform the long-term monitoring will be transferred to the LTSM Program.) Sites requiring additional assessment or active ground water remediation (i.e., initiation of pump-and-treat) will be retained in the UMTRA Ground Water Program until it is determined appropriate to transfer the sites to the LTSM Program. At that time, the funds to perform the pump-and-treat activities and the long-term monitoring will also be transferred.

*Activities After 2006:*

Inspection of the sites, including verification monitoring of passive or active ground water remediation activities will be performed by the LTSM Program. All costs associated with these activities are anticipated to be included in the LTSM Program.

*Major Cost Drivers:*

Degree and type of ground water contamination.

*Technologies/Approaches:*

The eventual compliance strategy for each site has yet to be determined. However, site-specific strategies have been assumed as a basis for cost estimates for budget formulation purposes. The compliance strategy approaches are:  
**No Remediation** - could be used under two circumstances: (1) at sites that do not have ground water contamination above maximum concentration limits (MCLs) and/or background levels, and (2) at sites that have ground water contamination above MCLs and/or

background levels but qualify for supplemental standards or alternate concentration limits (ACLS). Use of this strategy could involve a demonstration of compliance and, in some cases, additional site characterization.

**Natural Flushing** - passive ground water remediation that does not involve manipulation of ground water flow, quantity, or quality. Natural flushing could be the selected remedy at sites where (1) compliance with the ground water standards would occur within a period of 100 years or less, (2) where adequate monitoring and institutional controls could be established and maintained throughout the flushing period, (3) where institutional controls could result in conditions that were protective of human health and the environment, and (4) where the ground water was neither a current nor a projected drinking water source.

**Active Remediation** - could be used at sites where methods such as gradient manipulation, ground water extraction, and in situ ground water treatment are required to meet ground water standards.

**Waste/Materials Generated:** To be determined.

**Relation to Other Projects:** None

**Relation to Other Sites:** None

### Milestones/Schedule Information:

Milestone information may be updated for next revision based on current rebaselining efforts.

The Belfield and Bowman sites are not presently scheduled for further project activities because the State of North Dakota has declined participation in the UMTRCA-mandated cost sharing of funding for these sites. The Lowman site is not scheduled for further project activities because NRC concurred with the Surface Project RAP, which recommends no further ground water action because of the lack of ground water contamination.

Publish ROD .....	7/5/96
Canonsburg, PA	
Complete Final Site Observational Work Plan .....	2/27/98
Publish Remedial Action Plan .....	9/29/00
Transfer to LTSM Program.....	9/27/01
Salt Lake City, Utah	
Complete Final Site Observational Work Plan .....	6/24/02
Publish Remedial Action Plan .....	4/22/04

Ambrosia Lake, NM	Complete Final Site Observational Work Plan .....	2/25/98
	Publish Remedial Action Plan .....	5/10/99
	Transfer to LTSM Program .....	5/5/00
Naturita, CO	Complete Final Site Observational Work Plan .....	5/30/01
	Publish Remedial Action Plan .....	3/17/04
	Transfer to LTSM Program .....	12/15/10
Mexican Hat, Utah	Ground Water Compliance Action Plan Approved .....	3/17/98
	Transfer to LTSM Program .....	4/2/99
Maybell, CO	Ground Water Compliance Action Plan Approved .....	12/17/97
	Transfer to LTSM Program .....	1/7/99
Monument Valley, AR	Complete Final Site Observational Work Plan .....	8/24/98
	Ground Water Compliance Action Plan Approved .....	6/4/99
	Initiate Active Remediation .....	5/4/00
	Transfer to LTSM Program .....	10/11/10
Riverton, WY	Complete Final Site Observational Work Plan .....	12/31/97
	Ground Water Compliance Action Plan Approved .....	1/29/99
	Transfer to LTSM Program .....	7/15/05
Shiprock, NM	Complete Final Site Observational Work Plan .....	6/29/98
	Ground Water Compliance Action Plan Approved .....	6/28/99
	Transfer to LTSM Program .....	11/2/10
Tuba City, AZ	Complete Final Site Observational Work Plan .....	9/10/97
	Ground Water Compliance Action Plan Approved .....	9/30/98
	Initiate Active Remediation .....	8/31/99
	Transfer to LTSM Program .....	2/9/10

Falls City, TX	
Complete Final Site Observational Work Plan	11/19/97
Ground Water Compliance Action Plan Approved	11/20/98
Transfer to LTSM Program	12/9/99

**Costs:**

See Table IV-A

**Outputs/Metrics:**

See Table IV-B

**Discussion:**

***Validity of Data:***

The data is based on the FY 98-02 budget formulation process. A baseline change proposal is being prepared for submittal to DOE-HQ.

***BEMR II Differences:***

Projected costs in the BEMR II document were based on the FY97 budget formulation process. The information provided in the Ten-Year Plan are based on the FY98 budget formulation process. Budget constraints are reflected in the FY98 budget formulation numbers.

Project Name Type of Project	UMTRA Ground Water Project Remedial Action						Project # ALGJ-0001 (98 ADS)
<b>TABLE IV-A</b>							
Project Funding Table (Thousands of Dollars)							
							1997-
							2006
							Complete
1997	1998	1999	2000	2001	2002	2003	2004
Construction BA	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction BO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Operations BA	\$7,800	\$9,531	\$22,567	\$39,402	\$39,513	\$17,314	\$17,177
Operations BO	\$7,800	\$9,531	\$22,567	\$39,402	\$39,513	\$17,314	\$17,177
Other BA	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other BO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total BA	\$7,800	\$9,531	\$22,567	\$39,402	\$39,513	\$17,314	\$17,177
Total BO	\$7,800	\$9,531	\$22,567	\$39,402	\$39,513	\$17,314	\$17,177

Project Name Type of Project	UMTRA Ground Water Project Remedial Action									Project #	ALGJ-0001 (98 ADS)			
				TABLE IV-B Project Quantity Table (cubic meters)										
				1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007-
TRU New Waste														
MLLW New Waste														
LLW New Waste														
Haz New Waste														
Sanitary New Waste														
IX. Remedial Action (Release Sites)														
A. Completed Assessments	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	24
B. Completed Activities	0	0	1	1	0	0	0	0	0	0	0	0	0	2

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One    X    Project    —    Level of Effort**

**Project Name:** Long Term Surveillance and Maintenance Program

**Project Number:** ALGJ-0006 (98 ADS)

**Type of Project:** LTSM

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

**Purpose/Problem Addressed:**

Provides for custody, surveillance, environmental monitoring, maintenance, site security, annual reporting, and emergency response (in event of accident or site failure) for the following categories of sites: UMTRCA Title I and Title II disposal sites, NWPA Section 151(b) and 151(c) sites, D&D (previously SFMP) disposal sites, FUSRAP disposal sites, and other remote sites as designated by DOE.

**Facilities/Location:**

The 24 Title I sites are located in 10 States (Colorado, Arizona, New Mexico, Idaho, North Dakota, Oregon, Pennsylvania, Texas, Utah, and Wyoming) and on 4 Native American tribe/nation lands.

The 20 Title II sites are located in 7 States (Colorado, New Mexico, Washington, Utah, Texas, South Dakota, and Wyoming). The Section 151(b) site is located in Parkersburg, West Virginia. The 46 FUSRAP sites are located in 14 States (California, Connecticut, Illinois, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New Mexico, New York, Ohio, Oregon, Pennsylvania, Tennessee).

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One X Project        Level of Effort**

**Project Name:** Long Term Surveillance and Maintenance Program

**Project Number:** ALGJ-0006 (98 ADS)

**Type of Project:** LTSM

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

*Purpose/Problem Addressed:*

Provides for custody, surveillance, environmental monitoring, maintenance, site security, annual reporting, and emergency response (in event of accident or site failure) for the following categories of sites: UMTRCA Title I and Title II disposal sites, NWPA Section 151(b) and 151(c) sites, D&D (previously SFMP) disposal sites, FUSRAP disposal sites, and other remote sites as designated by DOE.

*Facilities/Location:*

The 24 Title I sites are located in 10 States (Colorado, Arizona, New Mexico, Idaho, North Dakota, Oregon, Pennsylvania, Texas, Utah, and Wyoming) and on 4 Native American tribe/nation lands. The 20 Title II sites are located in 7 States (Colorado, New Mexico, Washington, Utah, Texas, South Dakota, and Wyoming). The Section 151(b) site is located in Parkersburg, West Virginia. The 46 FUSRAP sites are located in 14 States (California, Connecticut, Illinois, Maryland, Massachusetts, Michigan, Missouri, New Mexico, New Jersey, New York, Ohio, Oregon, Pennsylvania, Tennessee).

**Waste/Materials Generated:** Not applicable

**Relation to Other Projects:** None

**Relation to Other Sites:** None

### Milestones/Schedule Information:

Title I Sites - Annual Surveillance/Monitoring/Maintenance.....	9/30/XX*
Title II Sites - Annual Surveillance/Monitoring/Maintenance.....	9/30/XX
Section 151(c) Site - Annual Surveillance/Monitoring/Maintenance.....	9/30/XX
Annual Cheney Operations starting in FY 99.....	9/30/XX
Annual GJPORAP Monitoring starting in FY 01.....	9/30/XX
Annual Monticello Surface and Groundwater Monitoring starting in FY 01 .....	9/30/XX

\* xx= Annual Activity

### Costs:

See Table IV-A

**Outputs/Metrics:** None

### Discussion:

### *Validity of Data:*

The data is based on the FY 98-02 budget formulation process. A baseline change proposal is being prepared for submittal to DOE-HQ.

*Waste/Materials Generated:* Not applicable

*Relation to Other Projects:* None

*Relation to Other Sites:* None

### Milestones/Schedule Information:

Title I Sites - Annual Surveillance/Monitoring/Maintenance.....	9/30/XX*
Title II Sites - Annual Surveillance/Monitoring/Maintenance .....	9/30/XX
Section 151(c) Site - Annual Surveillance/Monitoring/Maintenance .....	9/30/XX
Annual Cheney Operations starting in FY 99 .....	9/30/XX
Annual GPORAP Monitoring starting in FY 01 .....	9/30/XX
Annual Monticello Surface and Groundwater Monitoring starting in FY 01 .....	9/30/XX

\*XX= Annual Activity

### Costs:

See Table IV-A

**Outputs/Metrics:** None

### Discussion:

#### *Validity of Data:*

The data is based on the FY 98-02 budget formulation process. A baseline change proposal is being prepared for submittal to DOE-HQ.

Project Name	Long Term Surveillance and Maintenance Program						Project #	ALGJ-0006 (98 ADS)	
Type of Project	LTSM								
<b>TABLE IV-A</b>									
Project Funding Table (Thousands of Dollars)									
	1997	1998	1999	2000	2001	2002	2003	2004	2005
Construction BA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction BO	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Operations BA	\$1,435	\$1,792	\$1,919	\$2,780	\$3,598	\$3,932	\$3,920	\$3,940	\$4,320
Operations BO	\$1,435	\$1,792	\$1,919	\$2,780	\$3,598	\$3,932	\$3,920	\$3,940	\$4,320
Other BA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other BO	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total BA	\$1,435	\$1,792	\$1,919	\$2,780	\$3,598	\$3,932	\$3,920	\$3,940	\$4,320
Total BO	\$1,435	\$1,792	\$1,919	\$2,780	\$3,598	\$3,932	\$3,920	\$3,940	\$4,320

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One    X    Project —    Level of Effort**

**Project Name:** Uranium Leasing Project

**Type of Project:** All Other

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

*Purpose/Problem Addressed:*

The Uranium Leasing Project consists of the Uranium Lease Management (ULM) Program and the Test Pit Maintenance (TPM) Program. The ULM Program provides technical and administrative support for 43 lease tracts in Colorado and Utah, and includes (1) review, evaluation, and approval of leaseholders' environmental plans; (2) evaluation of lease-ore weighing, sampling, and assaying measurements to ensure accurate calculation and timely collection of royalties, (3) monitoring of surface-disturbing lease activities for compliance with applicable environmental requirements; (4) annual inspection of lease tracts; (5) mitigation of potential safety hazards; and (6) reclamation of environmental disturbances of sites where the disturbances are not the result of the leaseholder's activities. The TPM Program is responsible for administering and maintaining radiometric calibration facilities that support exploration and assessment activities associated with fuel and weapons uranium mineralization, and the cleanup of legacy defense waste. The DOE, other federal agencies, and industry use these facilities, designed to simulate field conditions, to standardize field measurements.

**Facilities/Location:**

The ULM Program currently administers 43 lease tracts covering approximately 24,000 acres in Colorado (38 sites) and Utah (5 sites). The TPM Program facilities located in Grand Junction, Colorado support subsurface and airborne systems. The TPM sites at Grants, New Mexico; Casper, Wyoming; and George West, Texas are intended for standardization of field measurements.

**Key Assumptions:**

- All required reclamation the ULM Program lease tracts (environmental disturbances resulting from exploration and mining activities conducted before the existing program) will be completed by 2006.
- An agreement with the Bureau of Land Management and Forest Service, establishing standards for returning additional lands to the public domain and initiating the process for restoring up to eight uranium lease tracts will be completed by 1998.
- The radiometric calibration facilities will be maintained at their current status to support the future national defense capability as well as cleanup of legacy defense waste.
- Approximately 75% of funding utilized to support the ULM Program will be reimbursed to the U.S. Government through leaseholder annual royalties. Leaseholder royalties are paid directly to the U.S. Treasury.

**Accomplishments to Date:**

- ULM Program - Completed Environmental Assessment and issued a FONSI; completed negotiations for 12 new 10-year leases.

**FY 2006 End State:**

The ULM Program will be completed. The Test Pit calibration facilities will remain active.

**Activities After 2006:**

Remediation of the sites by the current leaseholders may continue until the site is accepted by the BLM for restoration to the public. Maintenance of the Test Pit calibration facilities will continue in support of the overall DOE remediation mission.

**Major Cost Drivers:** The extent of leaseholder activities at the lease tracts.

**Technologies/Approaches:** Not applicable.

**Waste/Materials Generated:** Not applicable

**Relation to Other Projects:** None

**Relation to Other Sites:** None

### Milestones/Schedule Information:

Annual Test Pit Maintenance	9/30/XX*
Annual Lease Administration	9/30/XX
Complete pre-1974 lease reclamations	9/30/00
ULM Project closeout	9/30/06
*XX= Annual Activity	

### Costs:

See Table IV-A

**Outputs/Metrics:** None

### Discussion :

#### *Validity of Data:*

The data is based on the FY 98-02 budget formulation process. A baseline change proposal is being prepared for submittal to DOE-HQ.

### **BEMR II Differences:**

Projected costs in the BEMR II document were based on the FY97 budget formulation process. The information provided in the Ten-Year Plan are based on the FY98 budget formulation process. Budget constraints are reflected in the FY98 budget formulation numbers.

Project Name	Uranium Leasing Project					Project #	ALGJ-0005 (98 ADS)
Type of Project	All Other						
<b>TABLE IV-A</b>							
Project Funding Table (Thousands of Dollars)							
						1997-	2007-
						2006	2006 Complete
1997	1998	1999	2000	2001	2002	2003	2004
Construction BA	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction BO	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Operations BA	\$900	\$1,312	\$1,371	\$1,069	\$553	\$572	\$592
Operations BO	\$900	\$1,312	\$1,371	\$1,069	\$553	\$572	\$592
Other BA	\$0	\$0	\$0	\$0	\$0	\$613	\$634
Other BO	\$0	\$0	\$0	\$0	\$0	\$613	\$634
Total BA	\$900	\$1,312	\$1,371	\$1,069	\$553	\$572	\$592
Total BO	\$900	\$1,312	\$1,371	\$1,069	\$553	\$572	\$592

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

<b>Check One</b>	<b>Project</b>	<b>X</b>	<b>Level of Effort</b>
<b>Project Name:</b>	GJPO Waste Management Program (Level of Effort)		
<b>Type of Project:</b>	Site Infrastructure		

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

***Purpose/Problem Addressed:***

Provide technical/administrative support for the management of all hazardous, low-level radioactive, mixed, PCB, PCB-mixed, solid, and non-hazardous waste generated from operations managed at the GJPO and provide technical support for off-site programs. This program is also responsible for oversight of the sewer effluent discharge practices, facilitating waste shipments to off-site facilities, and hazardous material substitution, source reduction, and recycling.

***Facilities/Location:***

The Grand Junction Projects Office site is located on the southwest side of the City of Grand Junction, Mesa County, in western Colorado. The facility occupies 56.4 acres of land along a bend of the Gunnison River. It is bounded on the west and south by the river and on the north and east by county, city, and private property.

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One**    **Project**   X   **Level of Effort**

**Project Name:** GJPO Waste Management Program (Level of Effort)

**Project Number:** ALGJ-0001 (98 ADS)

**Type of Project:** Site Infrastructure

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

*Purpose/Problem Addressed:*

Provide technical/administrative support for the management of all hazardous, low-level radioactive, mixed, PCB, PCB-mixed, solid, and non-hazardous waste generated from operations managed at the GJPO and provide technical support for off-site programs. This program is also responsible for oversight of the sewer effluent discharge practices, facilitating waste shipments to off-site facilities, and hazardous material substitution, source reduction, and recycling.

*Facilities/Location:*

The Grand Junction Projects Office site is located on the southwest side of the City of Grand Junction, Mesa County, in western Colorado. The facility occupies 56.4 acres of land along a bend of the Gunnison River. It is bounded on the west and south by the river and on the north and east by county, city, and private property.

### *Relation to Other Projects:*

Activities are tied to waste generated on the GJPO site, or wastes transferred to the GJPO site that require management, as well as requested support for off-site waste generating activities.

### *Relation to Other Sites:*

## Milestones/Schedule Information:

Hazardous Waste Biennial Report .....	3/1/98 and biennial
PCB Annual Report .....	7/1/XX* through 2
Annual Industrial Pretreatment Self-Monitoring Report .....	7/31/XX through 2
Annual Hazardous/Toxic Waste Shipment .....	9/30/XX through 20
Annual Employee Pollution Prevention Awareness Training .....	9/30/XX through
Annual Revision of Waste Minimization and Pollution Prevention Goals .....	7/30/XX through
Site Annual Waste Reduction Report .....	9/30/XX through
Submit Quarterly Waste Minimization Progress Reports .....	9/30/06
Building 42 Closure .....	9/30/06
Project Closeout .....	9/30/06

## Costs:

See Table IV-A

## Outputs/Metrics: None

***Relation to Other Projects:***

Activities are tied to waste generated on the GJPO site, or wastes transferred to the GJPO site that require management, as well as requested support for off-site waste generating activities.

***Relation to Other Sites:*** None

**Milestones/Schedule Information:**

Hazardous Waste Biennial Report .....	3/1/98 and biennial
PCB Annual Report .....	7/1/XX* through 2
Annual Industrial Pretreatment Self-Monitoring Report .....	7/31/XX through 2
Annual Hazardous/Toxic Waste Shipment .....	9/30/XX through 2
Annual Employee Pollution Prevention Awareness Training .....	9/30/XX through 20
Annual Revision of Waste Minimization and Pollution Prevention Goals .....	9/30/XX through
Site Annual Waste Reduction Report .....	7/30/XX through
Submit Quarterly Waste Minimization Progress Reports .....	9/30/XX through
Building 42 Closure .....	9/30/06
Project Closeout .....	9/30/06

\*XX = Annual Activity

**Costs:**

See Table IV-A

**Outputs/Metrics:** None

Project Name	GJPO Waste Management Program (Level of Effort)			Project #	ALGJ-0001 (98 ADS)			
Type of Project	Site Infrastructure							
<b>TABLE IV-A</b>								
Project Funding Table (Thousands of Dollars)								
	1997	1998	1999	2000	2001			
Construction BA	\$0	\$0	\$0	\$0	\$0			
Construction BO	\$0	\$0	\$0	\$0	\$0			
Operations BA	\$1,867	\$1,364	\$1,403	\$1,445	\$1,490			
Operations BO	\$1,867	\$1,364	\$1,403	\$1,445	\$1,490			
Other BA	\$0	\$0	\$0	\$0	\$0			
Other BO	\$0	\$0	\$0	\$0	\$0			
Total BA	\$1,867	\$1,364	\$1,403	\$1,445	\$1,490			
Total BO	\$1,867	\$1,364	\$1,403	\$1,445	\$1,490			

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One \_\_\_\_\_ Project     X    Level of Effort**

**Project Name:** Program Support (Level of Effort Activities)

**Type of Project:** All Other

**Managing or Funding Program:** ER

**Project Definition/Work Scope Description:**

**Purpose/Problem Addressed:**

Program Support consists of specific activities that support Major Project AL-GJPO and Major Project UMTRA Ground Water. These activities are: (1) Management and Finance activities related to the preparation and completion of budget-related documents (including but not limited to the BEMR, MAP, EM-40 Core Database, budgetary and baseline documents, requests for performance measure, and PTS); (2) Landlord Program activities related to facilities management and engineering; energy management; custodial services; preventive, predictive, and corrective maintenance; and utilities; (3) Safeguards and Security activities associated with 24-hour coverage of the GJPO facilities required to prevent loss of government property, protect employees, and monitor alarms; and (4) Stakeholder Involvement and Public Participation activities that provide for community outreach, education programs, and news media relations.

**Facilities/Location:**

The Grand Junction Projects Office site is located on the southwest side of the City of Grand Junction, Mesa County, in western Colorado. The facility occupies 56.4 acres of land along a bend of the Gunnison River. It is bounded on the west and south by the river and on the north and east by county, city, and private property.

***Key Assumptions:***

- Program Support-based programs, including facility management, facility operations, maintenance, and betterments, security, Management and Finance, Stakeholder Involvement and Public Participation activities will be evaluated yearly and adjusted as necessary to support the current site mission.
- GJPO will have an LTSM mission through 2035, which is reflected in the site costs.

***Accomplishments to Date:*** To be provided later.

***FY 2006 End State:***

Decommissioning of the site will be completed (see GJPORAP) and be available for free release. Continued use of the site for DOE activities will depend on mission assignments.

***Activities After 2006:***

The Program Support activities are tied to the operation of the GJPO site and the site mission. Sites mission assignments (e.g., LTSM) may require continued Program Support. However, efficiencies are expected to be realized resulting from the current contract reform initiatives. These efficiencies are not quantified in this plan.

GJPO anticipates reducing the site footprint beginning FY98. A conceptual plan is being developed that allows for the release of office space and other facility structures for sale or transfer to non-DOE entities on an incremental basis. Site reduction is reflected in the funding profile. This conceptual plan has not been technically validated nor has it been presented to stakeholders.

***Major Cost Drivers:***

Project assignments (Management and Finance, and Stakeholder Involvement) and regulatory requirements (landlord and security).

***Technologies/Approaches:*** Not applicable

***Waste/Materials Generated:*** Not applicable

***Relation to Other Projects:*** Site activities are tied to program/project mission assignments.

*Relation to Other Sites:* None

### Milestones/Schedule Information:

Perform site maintenance	.....	9/30/XX*
Provide site security functions	.....	9/30/XX
Perform Management and Finance activities	.....	9/30/XX
Perform Stakeholder Involvement and Public Participation activities	.....	9/30/XX
* xx= Annual Activity		

### Costs:

See Table IV-A

### Outputs/Metrics:

None

### Discussion:

### *Validity of Data:*

The data is based on the FY 98-02 budget formulation process. A baseline change proposal is being prepared for submittal to DOE-HQ.

### *BEMR II Differences:*

Projected costs in the BEMR II document were based on the 97 budget formulation process. The information provided in the Ten-Year Plan are based on the 98 budget formulation process. Budget constraints are reflected in the 98 budget formulation numbers. The Program Support budget (minus Landlord) from FY 1997 through FY 2035 is level and only reflects escalation. The Landlord budget from 2003 through 2015 includes an escalation factor and a downward adjustment for decreased square footage of the site. Starting in 2016, the declining Landlord budget correlates with the EM-40 Core Database.

**Relation to Other Sites:** None

## Milestones/Schedule Information:

Perform site maintenance	9/30/XX*
Provide site security functions	9/30/XX
Perform Management and Finance activities	9/30/XX
Perform Stakeholder Involvement and Public Participation activities	9/30/XX

\*xx= Annual Activity

## Costs:

See Table IV-A

**Outputs/Metrics:** None

## Discussion:

### *Validity of Data:*

The data is based on the FY 98-02 budget formulation process. A baseline change proposal is being prepared for submittal to DOE-HQ.

### **BEMR II Differences:**

Projected costs in the BEMR II document were based on the 97 budget formulation process. The information provided in the Ten-Year Plan are based on the 98 budget formulation process. Budget constraints are reflected in the 98 budget formulation numbers. The Program Support budget (minus Landlord) from FY 1997 through FY 2035 is level and only reflects escalation. The Landlord budget from 2003 through 2015 includes an escalation factor and a downward adjustment for decreased square footage of the site. Starting in 2016, the declining Landlord budget correlates with the EM-40 Core Database.

Program Support

Project Name	Program Support						Project #	ALGJ-0001 (98 ADS)
Type of Project	All Other							
<b>TABLE IV-A</b>								
Project Funding Table (Thousands of Dollars)								
1997	1998	1999	2000	2001	2002	2003	2004	2005
Construction BA	0	0	0	0	0	0	0	0
Construction BO	0	0	0	0	0	0	0	0
Operations BA	\$5,629	\$6,393	\$6,681	\$7,863	\$5,919	\$6,120	\$6,297	\$6,487
Operations BO	\$5,629	\$6,393	\$6,681	\$7,863	\$5,919	\$6,120	\$6,297	\$6,487
Other BA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other BO	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total BA	\$5,629	\$6,393	\$6,681	\$7,863	\$5,919	\$6,120	\$6,297	\$6,487
Total BO	\$5,629	\$6,393	\$6,681	\$7,863	\$5,919	\$6,120	\$6,297	\$6,487

**Pinellas**

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One  Project \_\_\_\_\_ Level of Effort Activity

Project Name or Activity Description PINELLAS PLANT CLOSEOUT

Project Number PP-1

Type of Project or Activity LANDLORD PROGRAM - PLANT TRANSITION (EM-73) (select one from the Attachment II categories)

Managing or Funding Program (check one or more) WM ER TD NM X SO

**Project or Activity Definition/Work Scope Description**

The Pinellas Plant Close-out Project is a consolidation of three related activities. The three are broken out separately by ADS in the AL budget and are identified below.

1. Pinellas Plant Landlord - This area consist of all activities associated with maintaining the site infrastructure at a caretaker level, including administrative support, security, maintenance, utilities, contract close-out/transition, and a portion of the associated workforce reduction actions/costs which includes, for example, payments against workers compensation claims, long-term disability, and benefit administration. This action also includes payments against DOE's projected pension liability for the Pinellas Plant's workforce.
2. Facility Operations, Site Deactivation/Transition - Management, administration, and planning for facility transition activities including: the development, integration, and implementation of policies; site specific transition, site development, and facility transfer plans, and project management for deactivation activities.
3. Site Restoration Activities - Involves the long-term remediation of contaminated groundwater associated with the Pinellas Plant; treatment, storage and disposal of wastes generated at the Pinellas Plant and RCRA closure of waste facilities; and execution of the Pinellas Plant's liability under CERCLA for former off-site waste disposal.

**Facility Location** - The Pinellas Plant is located in Pinellas Count in far west central Florida.

**Key Assumptions** - No new sources of contamination are discovered and full funding is provided in order to complete the Plant transition to the Pinellas County Industrial Council (PCIC) by the end of FY97.

**Accomplishments to Date** - Completion of all critical milestones leading toward Plant close-out by the end of FY97.

**Attachment IV (Continued)**

Project Name or Activity Description PINELLAS PLANT CLOSEOUT Project Number PP-1

Type of Project or Activity LANDLORD PROGRAM - PLANT TRANSITION (EM-73) (select one from the Attachment II categories)

**Project or Activity Definition/Work Scope Description (Continued)**

FY06 End State - All transition activities and facility related cleanup activities are complete. The only ongoing activities include the operation, surveillance, and maintenance of the groundwater remediation project and disposal of its associated collected wastes and continuing payments against the pension liability.

Activities After FY06 - Operation, surveillance, and maintenance of the groundwater remediation project and disposal of its associated collected waste projected through FY12 and continuing payments against the pension liability.

**Milestone/Schedule Information**

**Costs**

Major Cost Drivers - Transition activities, groundwater remediation, and liquidation of pension liabilities.

SEE TABLE IV-A

**Indicate HQ Program Funding Source**

EM-73

**Outputs/Metrics**

Performance measurement of the Pinellas Plant Project consists primarily of meeting two key milestones. The first is to terminate operations and complete transfer of all Pinellas Plant facilities a to the PCIC by the end of FY97. The second is to complete contract close-out with the current M&O contractor and complete installation of the groundwater remediation system by the end of FY98. Once these milestones are accomplished, the remaining activities and funding issues involve completing the groundwater cleanup through operations, maintenance, and surveillance of the installed system and fully executing DOE's responsibilities for the residual pension liability. The first is dependent upon the degree of operational success and productivity achieved and the later is dependent upon DOE's ability to make the necessary funds available to fulfill its obligation.

**Discussion**

PPSO4

Project Name PINELLAS PLANT CLOSEOUT  
 Type of Project EM-73

Project # PP-1

**TABLE IV-A**  
**Project Funding Table**  
 (Thousands of Dollars)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997- 2006	2007- Complete
Construction BA												
Construction BO												
Operations BA	50400	8300	3400	2900	2600	2500	2500	2500	2500	2500	80200	10000
Operations BO	50400	8300	3400	2900	2600	2500	2500	2500	2500	2500	80200	10000
Other BA	8665	8588	6000	6000	6000	6000	6000	6000	6000	6000	65253	50000
Other BO	8665	8588	6000	6000	6000	6000	6000	6000	6000	6000	65253	50000
Total BA	59065	16888	9400	8900	8600	8600	8500	8500	8500	8500	145453	60000
Total BO	59065	16888	9400	8900	8600	8600	8500	8500	8500	8500	145453	60000

# **Plutonium R&D**

**Attachment IV**  
**Supporting Data**

**Worksheet for Projects and Level of Effort Activities**

Check One  Project \_\_\_\_\_Level of Effort Activity

Project Name or Activity Description RESEARCH AND DEVELOPMENT (PLUTONIUM R&D)

Type of Project or Activity OTHER \_\_\_\_\_  
(select one from Attachment II categories)

Managing or Funding Program (check one or more) WM ER TD X NM SO

**Project or Activity Definition/Work Scope Description**

On May 26, 1994, the Defense Nuclear Facilities Safety Board (DNFSB) issued Recommendation 94-1, which expressed the board's concern about nuclear materials left in the manufacturing "pipeline" after the United States halted its nuclear weapons production activities. In responding to DNFSB Recommendation 94-1, DOE committed to complete specific nuclear materials stabilization tasks assigned to three to eight-year timeframes. The research committee chartered by the Nuclear Materials Stabilization Task Group focused its review on existing technologies and on technologies currently under development to determine their adequacy relative to the three-year commitments. The committee also outlined research and development requirements to address technologies needed to support the Department's eight-year commitments. The research program funded by this project directly addresses to the areas required to respond to DNFSB Recommendation 94-1.

**Milestone/Schedule Information**

Completion of Technology Development, Demonstration, and Transfer to Support Three Year Commitments	1st Quarter FY1999
Completion of Standards Development and Core Technology Development to Support Eight Year Commitments	1st Quarter FY2003
Metal, Oxide, and Residue Shelf Life Program and Additional Technology Development as Identified	On-going

**Costs**

SEE TABLE IV-A  
RDAL4

**Attachment IV (Continued)**

Project Name or Activity Description RESEARCH AND DEVELOPMENT (PLUTONIUM R&D) Project Number DNFSB 94-1

Type of Project or Activity OTHER \_\_\_\_\_ (select one from Attachment II categories)

**Indicate HQ Program Funding Source**

**Special Projects**

**Outputs/Metrics**

None identified at this time

**Discussion**

This data reflects the latest version of the Research and Development Plan prepared by Los Alamos National Laboratory, which has been designated the lead laboratory for this project.

Project Name	RESEARCH AND DEVELOPMENT (PLUTONIUM R&D)						Project #
Type of Project	RESEARCH	DEVELOPMENT	OTHER				
Construction BA	1997	1998	1999	2000	2001	2002	2003
Construction BO							
Operations BA							
Operations BO							
Other BA	16000	14400	6300	6300	6300	4000	4000
Other BO	16000	14400	6300	6300	6300	4000	4000
Total BA	16000	14400	6300	6300	6300	4000	4000
Total BO	16000	14400	6300	6300	6300	4000	4000

TABLE IV-A  
Project Funding Table  
(Thousands of Dollars)

# **Indian Programs/AIP**

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One        Project       X       Level of Effort Activity

Project Name or Activity Description AMERICAN INDIAN ENVIRONMENTAL PROGRAMS

Project Number \_\_\_\_\_

Type of Project or Activity HQ Special Funding (select one from the Attachment II categories)

Managing or Funding Program (check one or more)       WM             ER             TD             NM             SO      

**Project or Activity Definition/Work Scope Description**

The American Indian Environmental Programs provides funding for the establishment and maintenance of environmental oversight and monitoring of DOE activities at the Los Alamos National Laboratory in order to assure citizens of nearby pueblos that public health, safety and the environment are being protected through existing programs and that DOE is in compliance with federal, state and local regulatory requirements. Funding is currently provided for the Pueblos of Santa Clara, Cochiti and Jemez as well as the Santa Fe Indian School, Navajo Colleges and Navajo Nation. Agreements are currently being finalized to provide funding to the Pueblos of Pojoaque and San Ildefonso. This program is not the National Indian Program, but rather an Albuquerque administered program.

**Milestone/Schedule Information**

Not applicable to Level of Effort Activities

**Costs**

**SEE TABLE IV-A**  
AIEPAL4

**Attachment IV (Continued)**

Project Name or Activity Description AMERICAN INDIAN ENVIRONMENTAL PROGRAMS

Project Number \_\_\_\_\_

Type of Project or Activity HQ Special Funding (select one from the Attachment II categories)

Indicate HQ Program Funding Source

Special Projects

Outputs/Metrics

None

Discussion

Cooperative Agreements with American Indian tribes are presently for three year project periods. Activities and the associated budgets are negotiated annually.

Project Name Type of Project	AMERICAN INDIAN ENVIRONMENTAL PROGRAMS HQ Special Funding	Project Funding Table (Thousands of Dollars)							Project #			
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997- 2006 Complete
Construction BA												
Construction BO												
Operations BA												
Operations BO												
Other BA	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	22000 on-going
Other BO	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	22000 on-going
Total BA	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	
Total BO	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One        Project       X       Level of Effort Activity

Project Name or Activity Description AGREEMENT IN PRINCIPLE, STATE OF NEW MEXICO Project Number \_\_\_\_\_

Type of Project or Activity WASTE MANAGEMENT (select one from the Attachment II categories)

Managing or Funding Program (check one or more) X WM        ER        TD        NM        SO

**Project or Activity Definition/Work Scope Description**

The New Mexico Agreement-in-Principle (AIP) provides funding for the support of New Mexico's oversight and monitoring of DOE compliance with applicable environmental laws and regulations at Sandia National Laboratory-New Mexico, Los Alamos National Laboratory, The Waste Isolation Pilot Plant and the Inhalation Toxicology Research Institute. The AIP is a program which allows independent monitoring and oversight by the state of New Mexico to assure the citizens that public health, safety and the environment are being protected through existing programs and that DOE is in compliance with federal, state and local regulatory requirements.

**Milestone/Schedule Information**

Not applicable to Level of Effort Activities

**Costs**

SEE TABLE IV-A

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One  Project  Level of Effort Activity

Project Name or Activity Description **AGREEMENT IN PRINCIPLE, STATE OF NEW MEXICO** Project Number \_\_\_\_\_

Type of Project or Activity **WASTE MANAGEMENT** (select one from the Attachment II categories)

Managing or Funding Program (check one or more)  WM  ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

The New Mexico Agreement-in-Principle (AIP) provides funding for the support of New Mexico's oversight and monitoring of DOE compliance with applicable environmental laws and regulations at Sandia National Laboratory-New Mexico, Los Alamos National Laboratory, The Waste Isolation Pilot Plant and the Inhalation Toxicology Research Institute. The AIP is a program which allows independent monitoring and oversight by the state of New Mexico to assure the citizens that public health, safety and the environment are being protected through existing programs and that DOE is in compliance with federal, state and local regulatory requirements.

**Milestone/Schedule Information**

Not applicable to Level of Effort Activities

Costs

**SEE TABLE IV-A**

Project Name      AGREEMENT IN PRINCIPLE, STATE OF NEW MEXICO  
Type of Project    Waste Management

Project #

TABLE IV-A  
Project Funding Table  
(Thousands of Dollars)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006	2007-Complete
Construction BA												
Construction BO												
Operations BA												
Operations BO												
Other BA	0	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	14850 on-going
Other BO	0	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	14850 on-going
Total BA	0	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	14850 on-going
Total BO	0	1650	1650	1650	1650	1650	1650	1650	1650	1650	1650	14850 on-going

# Technology Development

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One   Project   X Level of Effort Activity

Project Name or Activity Description   ALBUQUERQUE TECHNOLOGY DEVELOPMENT

Project Number \_\_\_\_\_

Type of Project or Activity   OTHER \_\_\_\_\_

(select one from Attachment II categories)

Managing or Funding Program (check one or more)   WM   ER   X TD   NM   SO

**Project or Activity Definition/Work Scope Description**

The Albuquerque Site Technology Coordination Group (STCG) has determined that the EM-50 established Focus Areas and associated Crosscutting Areas may not be able to address all environmental restoration and waste management needs by providing appropriate technologies. Albuquerque has smaller problems than the "Large" DOE sites and thus does not provide a good return on investment for the larger picture Focus and Crosscutting Areas. For this reason, the Albuquerque STCG has identified a need for \$5 million annually from FY1997 through FY2003 and \$2 million from FY2004 through FY2006. It is our understanding that all funding levels will be addressed by Headquarters for the Ten Year Plan. Albuquerque STCG needs have been provided to Mike Barainca, EM-50.

**Milestone/Schedule Information**

N/A

Costs

SEE TABLE IV-A

(Responsibility of Headquarters)

**Attachment IV (Continued)**

Project Name or Activity Description	<u>ALBUQUERQUE TECHNOLOGY DEVELOPMENT</u>	Project Number	_____
Type of Project or Activity	<u>OTHER</u>	(select one from Attachment II categories)	

**Indicate HQ Program Funding Source**

**Special Projects**

**Outputs/Metrics**

None identified at this time

**Discussion**

This data reflects the information provided to Mike Barainca, EM-50 by the Albuquerque STCG. All funding allocations for Technology Development in the Ten Year Plan are the responsibility of Headquarters. Albuquerque specific Technology Development needs to address Albuquerque's small and unique problems are identified by the STCG will require funding as shown in Table IV-A.

# Transportation Management

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

Check One Project X Level of Effort Activity

Project Name or Activity Description ALBUQUERQUE TRANSPORTATION MANAGEMENT

Project Number \_\_\_\_\_

Type of Project or Activity HQ Special Funding (select one from the Attachment II categories)

Managing or Funding Program (check one or more) WM ER X TD NM SO

**Project or Activity Definition/Work Scope Description**

The Transportation Base Technology Program provides support to DOE/EM76 in its role as the transportation center of the Department of Energy. Base technology is the development of concepts and technologies that are a logical extension of capabilities needed to advance current and future radioactive material (RAM) transportation capacity, reduce costs and assure the public of the safety RAM transportation. This program includes the development of engineering analysis tools, risk analysis tools and information, testing tools and practices, and innovative packaging systems concepts. The program also includes materials characterization, systems analysis, component characterization, support of standards development, and a baseline of data and research findings regarding public perceptions of risks of transporting RAM and public acceptance of transportation policies. This Sandia program has served DOE in the transportation area since 1978.

**Milestone/Schedule Information**

**Not applicable to Level of Effort Activities**

**Costs**

**SEE TABLE IV-A**

**Attachment IV (Continued)**

Project Name or Activity Description ALBUQUERQUE TRANSPORTATION MANAGEMENT  
Type of Project or Activity HQ Special Funding (select one from the Attachment II categories)

**Indicate HQ Program Funding Source**

**Special Projects**

**Outputs/Metrics**

**None**

**Discussion**

This data closely reflects the planning level information provided in the FY98 Activity Data Sheet submittal.

Project Name Type of Project	ALBUQUERQUE TRANSPORTATION MANAGEMENT	Other	Project #												
				1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997- 2006	2007- Complete
Construction BA															
Construction BO															
Operations BA															
Operations BO															
Other BA	5045	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995
Other BO	5045	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995
Total BA	5045	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995
Total BO	5045	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995	4995

# **Analytical Laboratory Program**

**Attachment IV**  
**Supporting Data**

**Worksheet for Projects and Level of Effort Activities**

**Check One** Project X **Level of Effort Activity**

**Project Name or Activity Description** CHARACTERIZATION MANAGEMENT PROGRAM

**Project Number** \_\_\_\_\_

**Type of Project or Activity** REMEDIAL ACTION (includes both assessment and cleanup) (select one from Attachment II categories)

**Managing or Funding Program (check one or more)** X WM X ER TD NM X SO

**Project or Activity Definition/Work Scope Description**

This program addresses the full range of issues encountered in Characterization Management, including (1) planning how many and what type of laboratory environmental analyses are required for characterization or remediation, (2) ensuring appropriate sample collection techniques are employed, (3) ensuring cost-effect procurement strategies are developed and utilized, and (4) ensuring, through quality assurance and quality control processes, the data is technically defensible.

**Facilities/locations** - This program is in effect at each area office in the Albuquerque Operations Office as well as in the cognizant DOE-AL program offices.

**Key Assumptions** - Characterization Management is intimately associated with all environmental programs, Elements of a Characterization Management Program will be required as long as any type environmental analysis is required, including Environmental Restoration, Waste Management, Waste Characterization, and Environmental Monitoring.

**Accomplishments to Date** - Developed a consolidated quality assurance audit approach that serves to both increase the ability of DOE-AL to assess the technical quality of analytical data from environmental laboratories and eliminate duplicate audits performed by DOE-AL sites of the same laboratory. Conducted a baseline assessment of Characterization Management Programs at all DOE-AL sites and identified areas needing improvement. Began implementation of the Department of Energy Electronic Data Deliverable Master Specification. Began adaptation of EPA's Electronic Data Validation software for DOE purposes.

**Attachment IV (Continued)**

Project Name or Activity Description	<u>CHARACTERIZATION MANAGEMENT PROGRAM</u>	Project Number
Type of Project or Activity	<u>REMEDIAl ACTION</u> (includes both assessment and cleanup)	(select one from Attachment II categories)

**FY2006 End State** - In FY2006 ER and WM activities will be virtually complete at DOE-AL sites. Characterization Management activities will be required to support long term environmental monitoring and waste characterization activities related to production or research at DOE-AL sites.

**Activities After FY2006** - Long term environmental monitoring, waste characterization related to production or research at DOE-AL sites.

**Major Cost Drivers** - There are no major cost drivers.

**Technology/Approach** - Technology related to electronic data deliverables and electronic data validation will be developed to support national DOE objectives relative to achieving cost effective procurement and data management. The DOE-AL Characterization Management Program will also interface with EM-50 to explore the use of new and emerging technologies related to characterization management.

**Waste/Materials Generated** - No waste will be generated by this program

**Relation to Other Projects** - As every environmental program has need for laboratory environmental analyses, this program is related to all such programs, e.g. environmental restoration, waste management, waste characterization, and environmental monitoring.

**Relation to Other Sites** - Needs from Other Sites: This program will, through coordination with other site Characterization Management Programs, utilize techniques and approaches developed or utilized at other sites that can benefit the DOE-AL program.

**Offers to Other Sites** - This program will, through coordination with other site Characterization Management Programs, transfer techniques and approaches developed or utilized at DOE-AL to other sites for their benefit.

**Attachment IV (Continued)**

Project Name or Activity Description	<u>CHARACTERIZATION MANAGEMENT PROGRAM</u>	Project Number
Type of Project or Activity	<u>REMEDIAL ACTION</u> (includes both assessment and cleanup)	(select one from Attachment II categories)

**Milestone/Schedule Information**

Begin Program FY1996

Complete Program: FY2006 (with exception long term monitoring and waste characterization)

**Costs**

**SEE TABLE IV-A**

**Indicate HQ Program Funding Source**

**Special Projects**

**Outputs/Metrics**

The outputs of this program will be measured several factors including:

- (1) Dollars saved by avoiding duplicative procurement actions
- (2) Dollars saved by avoiding duplicative quality assurance audits
- (3) Dollars saved by avoiding duplicative performance evaluation analyses
- (4) Dollars saved by reducing characterization management support costs including quality assurance and data validation costs, and
- (5) Dollars saved by reducing sampling and analysis costs through the use of Data Quality Objectives

**Discussion**

This program is being developed to support national and local Characterization Management initiatives.

**Attachment IV (Continued)**

**Project Name or Activity Description** CHARACTERIZATION MANAGEMENT PROGRAM

**Project Number** \_\_\_\_\_

**Type of Project or Activity** REMEDIAL ACTION (includes both assessment and cleanup) (select one from Attachment II categories)

**Milestone/Schedule Information**

Begin Program FY1996

Complete Program: FY2006 (with exception long term monitoring and waste characterization)

**Costs**

SEE TABLE IV-A

Indicate HQ Program Funding Source

**Special Projects**

**Outputs/Metrics**

The outputs of this program will be measured several factors including:

- (1) Dollars saved by avoiding duplicative procurement actions
- (2) Dollars saved by avoiding duplicative quality assurance audits
- (3) Dollars saved by avoiding duplicative performance evaluation analyses
- (4) Dollars saved by reducing characterization management support costs including quality assurance and data validation costs, and
- (5) Dollars saved by reducing sampling and analysis costs through the use of Data Quality Objectives

**Discussion**

This program is being developed to support national and local Characterization Management initiatives.

# **Program Direction**

**Attachment IV**  
**Supporting Data**  
**Worksheet for Projects and Level of Effort Activities**

**Check One** Project  X **Level of Effort Activity**

**Project Name or Activity Description** ALBUQUERQUE PROGRAM DIRECTION

**Project Number** \_\_\_\_\_

**Type of Project or Activity** PROGRAM DIRECTION (select one from the Attachment II categories)

**Managing or Funding Program (check one or more)** WM  ER  TD  NM  SO

**Project or Activity Definition/Work Scope Description**

Program Direction funding pays salaries, benefits, training, regular travel, and permanent change of station (PCS) expenses for federal employees. The Environmental Management Program Direction funding at Albuquerque includes the Environmental Restoration, Waste Management, Nuclear Materials and Facility Stabilization, Emergency Management and Technology Development programs. Program Direction, beginning in FY97 also includes funding for Technical and managerial support services contracts (approximately \$3M).

**Milestone/Schedule Information**

**Not Applicable to Level of Effort Activities**

**Costs**

**SEE TABLE IV-A**

**Attachment IV (Continued)**

Project Name or Activity Description ALBUQUERQUE PROGRAM DIRECTION \_\_\_\_\_

Project Number \_\_\_\_\_

Type of Project or Activity PROGRAM DIRECTION (select one from the Attachment II categories)

Indicate HQ Program Funding Source

Program Direction

Outputs/Metrics

None

Discussion

Project Name    ALBUQUERQUE PROGRAM DIRECTION  
 Type of Project    Program Direction

Project #

**TABLE IV-A**  
**Project Funding Table**  
 (Thousands of Dollars)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1997-2006 Complete
Construction BA											
Construction BO											
Operations BA											
Operations BO											
Other BA	19565	19556	19556	19556	19556	19556	19556	19556	19556	19556	195569 on-going
Other BO	19565	19556	19556	19556	19556	19556	19556	19556	19556	19556	195569 on-going
Total BA	19565	19556	19556	19556	19556	19556	19556	19556	19556	19556	
Total BO	19565	19556	19556	19556	19556	19556	19556	19556	19556	19556	195569 on-going

# **Attachment V**

**Attachment V**  
**Summary of Major Opportunities**

<u>Mortgage Reduction</u>	<u>IRR</u>	<u>NPV</u>	<u>Payback Period</u>
Monticello Remedial Action Program -- includes MRAP/MVP/MSG	2%	-0.2 (at 3%)	5 yrs

Modeling was conducted using the formula provided with the 10-Year Plan guidance. Funding levels for Monticello were based on FY96 unescalated dollars. MRAP/MVP/MSG were included as a single project; independent analysis was not conducted.

Accelerated annual funding levels were arbitrary and have not been validated by a technical baseline or work plan.

A completed printout from the modeling software is attached.

<u>Privatization</u>	<u>IRR</u>	<u>NPV</u>	<u>Payback Period</u>
----------------------	------------	------------	-----------------------

GJPO, through the recent awarding of a set-aside small business contract, has implemented contract reform. Fixed-price contracts were awarded for the following onsite services:

- Yards and Ground Maintenance
- Cafeteria Services
- Medical Services
- Safeguards and Security
- Custodial Services

Though currently in the negotiation phase, GJPO anticipates reduced landlord costs once the individual contracts are underway.

## MORTGAGE REDUCTION PROPOSAL LANL TRU DECONTAMINATION PROJECT

### **(1) SCENARIO DESCRIPTIONS**

#### *Minimum Safe Storage Scenario*

Storage operations, including surveillance and maintenance, of Los Alamos National Laboratory (LANL) transuranic (TRU) waste storage facilities indefinitely in lieu of shipping waste to the Waste Isolation Pilot Plant (WIPP). [Note: This scenario is not represented in the mortgage reduction model as it is in conflict with DOE policy and guidance.]

#### *Target Scenario*

Current scenario for shipping all waste currently classified as TRU to WIPP by 2005 to meet the goals of the 10-Year Plan (this scenario does not meet budget guidance).

#### *Accelerated Scenario*

Accelerated scenario for sorting, segregating, decontaminating, and repackaging TRU waste before shipment to WIPP. This project will allow for reclassifying significant quantities of TRU waste as low-level waste.

### **(2) ASSUMPTIONS**

- All TRU waste at LANL must be certified by the Laboratory to meet the WIPP waste acceptance criteria.
- The Decontamination and Decommissioning Focus Area of EM-50 will participate with DOE/AL in identifying and evaluating innovative technologies to characterize, sort, segregate, and decontaminate the TRU inventory as described in the LANL TRU workoff plan.

### **(3) SENSITIVITIES**

N/A

### **(4) BASIS FOR PROJECT CHOICE AS A MORTGAGE REDUCTION CANDIDATE**

Storage and disposal of large volumes of TRU waste represents a huge cost to DOE. Conversely, costs to dispose of materials as low-level waste are vastly less. Diverting significant volumes of waste from the TRU classification to the low-level waste classification would significantly reduce DOE's costs.

**(5) DATA QUALITY**

*Category I - Level of Effort/Expert Opinion*  
Medium

*Category II - Initial Baseline*  
Low

*Category III - Detailed Cost Estimate*  
Cost and schedule data has not been validated.

**Site (Location):**  
**Waste Type:**  
**Description:**

## **AL (Los Alamos National Laboratory)**

**TRU**

**TRU Decontamination Project**  
This analysis compares: 1) the cost of characterizing and shipping all TRU waste to WIPP by 2005 [target scenario to meet the 10-Year Plan [will exceed budget guidance]], to 2) the cost of sorting, segregating, minimizing, and repackaging all TRU waste before shipping to WIPP [alternative funding].

Mail Code:

**FM-30**

**Main Code:**  
**Constant & Year:**  
**ADS No.(s):**

EM-3  
1996

#### **4172. Facility Operations and Maintenance**

# MORTGAGE REDUCTION PROPOSAL CONSOLIDATE TRU WASTE AT LANL

## (1) SCENARIO DESCRIPTIONS

### *Minimum Safe Storage Scenario*

Storage operations, including surveillance and maintenance, of TRU waste at SNL/NM and Pantex in lieu of shipping waste to LANL for consolidated storage.

### *Target Scenario*

Current scenario for maintaining storage operations and developing TRU waste characterization and certification programs at SNL/NM and Pantex (same as minimum safe storage scenario).

### *Accelerated Scenario*

Accelerated scenario for moving all SNL/NM and Pantex TRU waste to LANL for consolidated storage. This would eliminate the need for SNL/NM and Pantex to maintain "base program" activities such as characterization and certification programs.

## (2) ASSUMPTIONS

- A total of 35 drums require shipment to LANL.
- LANL currently stores an estimated 50,000 Drum-Volume Equivalents of TRU waste, and is preparing waste to initiate shipments to WIPP in 1998.
- The cost estimate assumes shipping TRU waste from SNL/NM and Pantex to LANL using TRUPACT-II shipping casks.

## (3) SENSITIVITIES

DOT - Applicable over transport routes, Transportation Safeguards Division is certified shipper.

## (4) BASIS FOR PROJECT CHOICE AS A MORTGAGE REDUCTION CANDIDATE

Consolidating TRU waste at LANL eliminates the need to maintain a base program at SNL/NM and Pantex.

## (5) DATA QUALITY

### *Category I - Level of Effort/Expert Opinion*

Level of confidence - High

### *Category II - Initial Baseline*

Level of confidence - High. Cost estimates were derived from approved site baselines.

### *Category III - Detailed Cost Estimate*

Level of confidence - High. Detailed cost estimates were validated during the FY96 baseline reviews.

Site (Location):

**AL (SNL/NM, Pantex, and LANL)**

Waste Type:

**TRU**

Description:

**Consolidation of TRU Waste at LANL**

Mail Code:

**EM-30**

Constant # Year:

**1996 (\$000)**

ADS No.(s):

**ALAL-4172, Facility Operations & Maintenance**

(I) Fiscal Year	(II) Alternative Funding	(III) Discounted Cash Flow (NPV)		(V) Target/Min Safe Storage Funding	(VI) Discounted Cash Flow (NPV)		(VII) Annual Debt (V) - (II)	(VIII) Cumulative Debt	(IX) Internal Rate of Return (IRR)
		3%	7%		3%	7%			
1996	\$20	\$20	\$20	\$0	\$0	\$0	(\$20)	(\$20)	
1997	\$38	\$37	\$36	\$1,078	\$1,047	\$1,007	\$1,040	\$1,020	
1998	\$38	\$36	\$33	\$1,078	\$1,016	\$942	\$1,040	\$2,060	
1999	\$8	\$7	\$7	\$12	\$11	\$10	\$4	\$2,064	
2000	\$8	\$7	\$6	\$12	\$11	\$9	\$4	\$2,068	
2001	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2002	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2003	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2005	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2006	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2007	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2008	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2009	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2010	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2011	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2012	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2013	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2015	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2016	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2017	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2018	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2019	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2020	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2021	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2022	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2023	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2024	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2026	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2027	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2028	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2029	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2030	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2031	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2032	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2033	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2034	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2035	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2036	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2037	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2038	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2039	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2040	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2041	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2042	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2043	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2044	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2045	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2046	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2047	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2048	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2049	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2050	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2051	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2052	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2053	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2054	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2055	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2056	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2057	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2058	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2059	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	
2060	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,068	5198%
<b>Totals</b>	<b>\$112</b>	<b>\$107</b>	<b>\$101</b>	<b>\$2,180</b>	<b>\$2,084</b>	<b>\$1,968</b>			
NPV Ratio (3%)							94.9%		
NPV Ratio (7%)							94.9%		
IRR							5198%		
Payback							1		

# **Attachment VI**

Albuquerque Operations  
Attachment 6 Summary

**Attachment VI**

1	A	B	C	D	E	F	G	H	I	J	K	L
2	Support Cost Crosscut											
3	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total	
(Millions of dollars)												
5												
6												
7	General Support	57.0	70.5	56.9	55.1	53.9	49.1	48.0	46.0	45.1	41.8	523.4
8	a.k.a. Program Support (for contractors)											
9												
10												
11												
12	Mission Support	5.629	6.393	6.681	7.863	5.919	6.12	6.297	6.487	6.68	6.881	64.95
13	AL sites reside at DP operated facilities so EM contributions to Mission Support Costs are indirectly charged through burden equations at each site. Therefore, all Mission Support costs for AL-EM are aggregated in estimates provided in other budget categories. Mission Support costs shown are only for GJPO.											
14												
15												
16												
17	Total	62.6	76.9	63.5	63.0	59.8	55.2	54.3	52.5	51.8	48.7	588.3
18												
19												
20												
21												
22												